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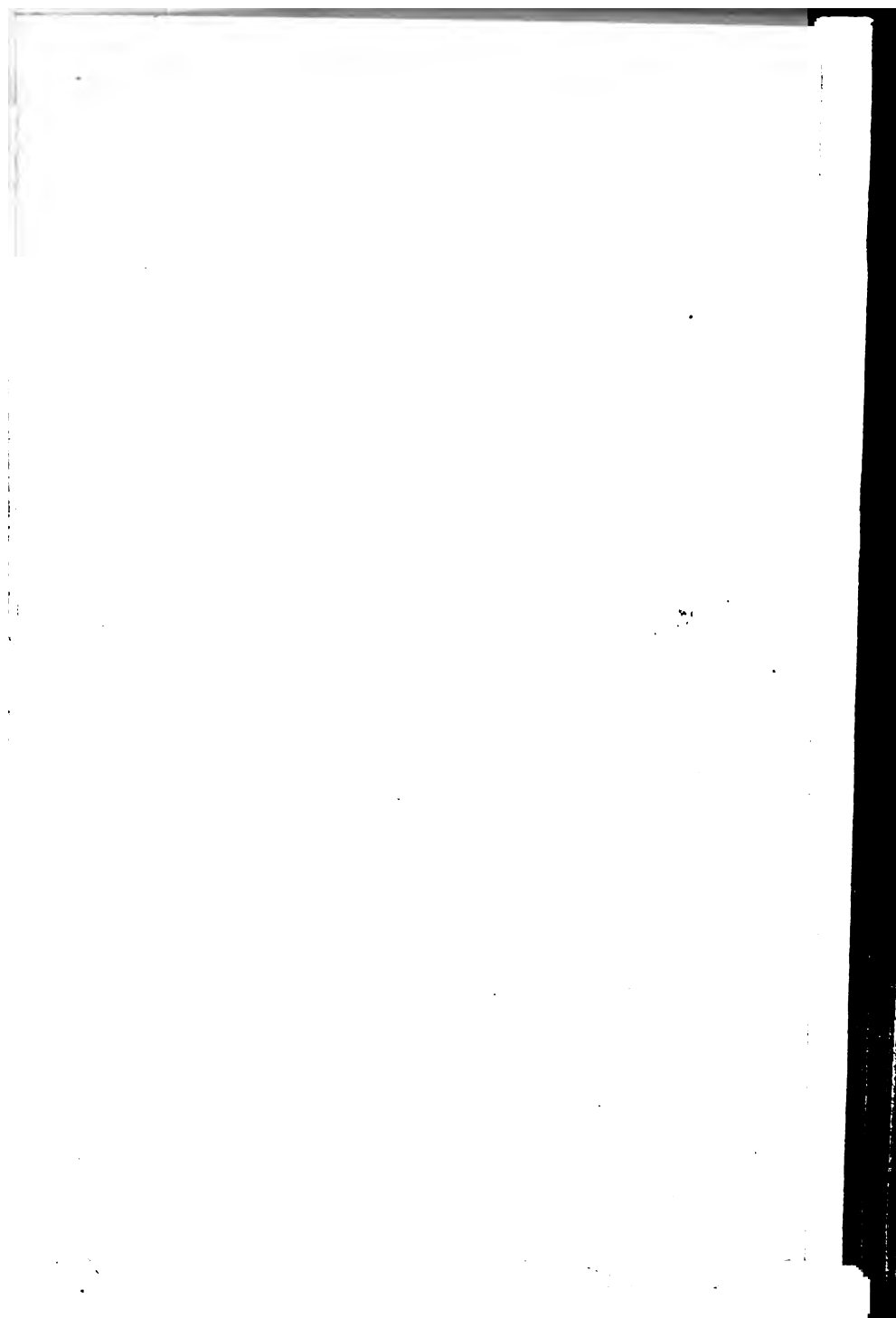
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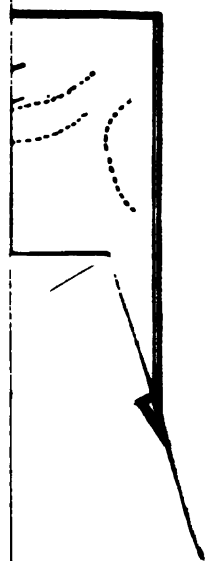
Dartmouth College

Jan. 8 1904

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CATALOGUE
OF
DARTMOUTH COLLEGE

TOGETHER WITH THE

AMOS TUCK SCHOOL OF ADMINISTRATION
AND FINANCE

THE THAYER SCHOOL OF CIVIL ENGINEERING

AND

THE MEDICAL SCHOOL

FOR THE YEAR

1903-1904

HANOVER, N. H.
PRINTED FOR THE COLLEGE
1903

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COLLEGE CALENDAR

DARTMOUTH COLLEGE

1903

September 17-21 . . . Examinations for Admission — Thursday to Monday.

September 24 . . . Academic year began — Thursday morning.

October 15 . . . Athletic Field-day; a holiday.

November 26 . . . Thanksgiving Day; a holiday.

Recess from December 23, 10 A.M., to January 5, inclusive.

1904

January 30 to Feb. 9 First Semester Examinations.

March 9 The Smith and Rollins Prize Speaking — 8 P.M.

Recess from April 1, 10 A.M., to April 13, inclusive.

June 15-25 Second Semester Examinations.

June 22-25 Examinations for Admission.

June 25 Speaking for the Barge medal and for the "Class of 1866" prizes — Saturday, 8 P.M.

June 26 Baccalaureate Discourse — Sunday, 10.30 A.M.
Address before the Y. M. C. A. — Sunday, 8 P.M.

June 27 Class Day Exercises — Monday, 2.30 P.M.

June 28 Annual Meeting of the Phi Beta Kappa Society — Tuesday, 8.30 A.M.
Address—Phi Beta Kappa Society—10.30 A.M.
Annual Meeting of the Alumni Association — 2.30 P.M.

Greek Letter Society Reunions — 5 P.M.

President's Reception, College Hall, 9-11 P.M.

June 29 COMMENCEMENT — Last Wednesday in June.

Summer Vacation of Twelve Weeks.

1904

September 15-19 . . . Examinations for Admission — Thursday to Monday.

September 20, 21 . . . Registration — Tuesday, Wednesday.

September 22 . . . Academic year begins — Thursday morning.

December 22 . . . Christmas recess begins.

AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

1903

September 24 . . . Year began — Thursday morning.

November 26 . . . Thanksgiving Day; a holiday.

Recess from December 23, 10 A.M., to January 5, inclusive.

1904

January 30 to Feb. 9 Examinations for First Year Course.

April 1-13 . . . Recess for First Year Course.

April 27 . . . Second Year Course ends.

June 9-17 . . . Examinations for First Year Course.

THAYER SCHOOL OF CIVIL ENGINEERING

1903

July 15 . . . First Year Course began.

September 15 . . . Second Year Course began.

December 22 . . . Recess of ten days begins.

1904

April 26 . . . Thayer School Year ends.

MEDICAL SCHOOL

1903

July 14 . . . Third and Fourth Year Courses began.

September 24 . . . First and Second Year Courses began.

Recess from December 23, 10 A.M., to January 5, inclusive.

1904

February 20 . . . Third and Fourth Year Courses end.

February 22, 23 . . . Examinations by Delegates.

February 23 . . . Graduating Exercises.

April 1 . . . Second Year Course ends.

June 25 . . . First Year Course ends.

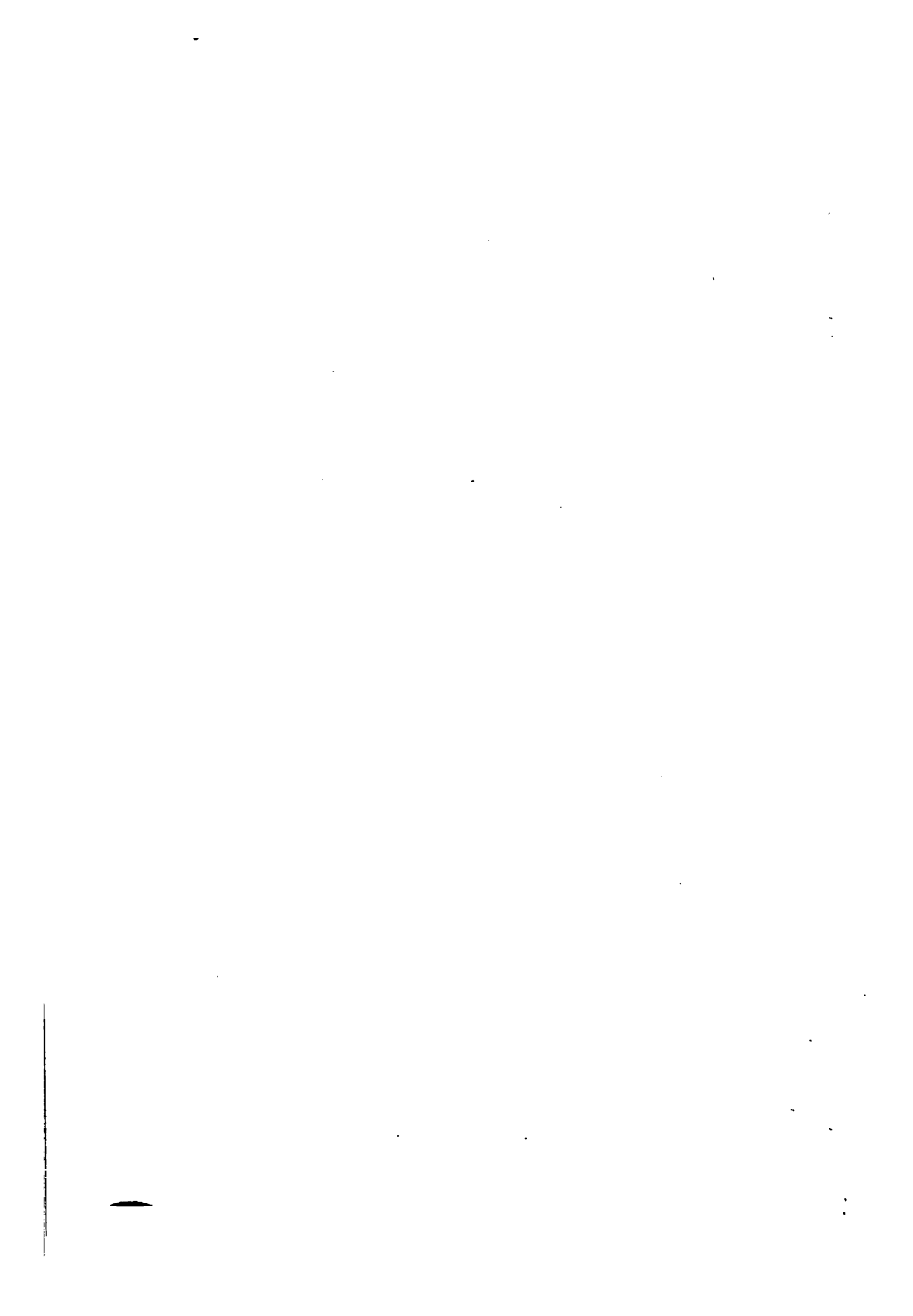
1904

Change after 1903-1904

August 15 . . . Third and Fourth Year Courses begin; and
the year will end with the April Recess.

September 22 . . . First and Second Year Courses begin.

CHARTER



THE
CHARTER OF DARTMOUTH COLLEGE

GEORGE THE THIRD by the grace of **GOD** of Great Britain
France and Ireland **KING** Defender of the Faith, and so
forth. —

To all to whom these Presents shall come.

GREETING.

WHEREAS it hath been represented to our Trusty and well beloved **JOHN WENTWORTH** Esquire Governor and Commander in Chief in and over our Province of **NEW HAMPSHIRE** in New England in **AMERICA**, that the Reverend **ELEAZER WHEELOCK** of Lebanon in the Colony of Connecticut in New England aforesaid, now Doctor in Divinity, did on or about the year of our Lord one thousand seven hundred and Fifty four, at his own expence, on his own Estate and Plantation set on foot an **INDIAN** Charity School and for several years through the assistance of well-disposed Persons in America, cloathed, maintained and educated a number of the Children of the Indian Natives, with a view to their carrying the Gospel in their own Language and spreading the knowledge of the great Redeemer among their Savage Tribes, and hath actually employ'd a number of them as Missionaries and Schoolmasters in the Wilderness for that purpose : and by the blessing of **GOD** upon the endeavours of said Wheelock the design became reputable among the Indians insomuch that a larger number desired the Education of their Children in said School ; and were also disposed to receive Missionaries and Schoolmasters in the Wilderness more than could be supported by the charitable Contributions in these American Colonies. — **WHEREUPON** the said Eleazer Wheelock thought it expedient that endeavours should be used to raise Contributions from well disposed Persons in England for the carrying on and extending said undertaking, And for that purpose said Eleazer Wheelock requested the Reverend Nathaniel

Whitaker now Doctor in Divinity to go over to England for that purpose, and sent over with him the Reverend Samson Occom an Indian Minister who had been educated by the said Wheelock, And to enable the said Whitaker to the more successful performance of said Work on which he was sent, said Wheelock gave him a full Power of Attorney by which said Whitaker solicited those worthy & generous Contributors to the Charity viz^t. The Right Honorable WILLIAM Earl of DARTMOUTH, The Honorable Sir SIDNEY STAFFORD SMYTHE Knight, one of the Barons of his Majesty's Court of Exchequer, JOHN THORNTON of Clapham in the County of Surrey Esquire, SAMUEL ROFFEY of Lincoln's Inn fields in the County of Middlesex Esquire, CHARLES HARDY of the parish of Saint Mary-le-bonne in said County Esquire, DANIEL WEST of Christ's church Spitalfields in the County aforesaid Esquire, SAMUEL SAVAGE of the same place Gentleman, JOSIAH ROBERTS of the parish of Saint Edmund the King Lombard Street, London Gentleman, and ROBERT KEEN of the parish of Saint Botolph Aldgate London, Gentleman, to receive the several Sums of Money which should be contributed, and to be Trustees for the Contributors to such Charity, which they chearfully agreed to. Whereupon the said Whitaker did by virtue of said Power of Attorney constitute and appoint the said Earl of Dartmouth Sir Sydney Stafford Smythe, John Thornton, Samuel Roffey, Charles Hardy & Daniel West Esquires, and Samuel Savage Josiah Roberts and Robert Keen Gentlemen to be Trustees of the Money which had then been contributed, and which should by his means be contributed for said Purpose; which Trust they have accepted as by their engrossed Declaration of the same under their Hands and Seals well executed fully appears, and the same has also been ratified by a deed of Trust well executed by the said Wheelock; — And the said Wheelock further represents that he has by power of Attorney for many weighty reasons, given full Power to the said Trustees to fix upon and determine the place for said School most subservient to the great end in view, and to enable them understandingly to give the preference, the said Wheelock has laid before the said Trustees the several Offers which have been generously made in the several Governments in America to encourage and invite the settlement of said School among them for their own private emolument, and the increase of Learning in their respective places as well as for the furtherance of the general design in view. And whereas a large number of the Proprietors of Lands in the western part of this our Province of New Hampshire,

animated & excited thereto by the generous example of his Excellency their Governor, and by the liberal Contributions of many Noblemen and Gentlemen in England; and especially by the consideration that such a situation would be as convenient as any for carrying on the great design among the Indians; and also considering that without the least impediment to the said design the same School may be enlarged & improved to promote Learning among the English, & be a means to supply a great number of Churches & Congregations which are likely soon to be formed in that new Country with a learned & orthodox ministry; they the said Proprietors have promised large Tracts of Land for the uses aforesaid, provided the School shall be settled in the western part of our said Province. And they the said Right Honorable, Honorable and worthy Trustees before mentioned having maturely consider'd the reasons & arguments in favour of the several Places proposed, have given the preference to the western part of our said Province lying on Connecticut River, as a situation most convenient for said School; And the said Wheelock has further represented a necessity of a legal Incorporation in order to the safety and well being of said Seminary, and its being capable of the tenure & disposal of Lands & bequests for the use of the same. And the said Wheelock has also represented that for many weighty reasons it will be expedient at least in the infancy of said Institution or 'till it can be accommodated in that new Country and he & his Friends be able to remove and settle by and round about it, that the Gentlemen whom he has already nominated in his last Will (which he has transmitted to the aforesaid Gentlemen of the Trust in England) to be Trustees in America should be of the Corporation now proposed & also as there are already large Collections for said School in the hands of the aforesaid Gentlemen of the Trust in England and all reason to believe from their singular wisdom, piety and zeal to promote the Redeemers cause (which has already procured for them the utmost confidence of the Kingdom) we may expect they will appoint Successors in time to come who will be men of the same Spirit whereby great good may & will accrue many ways to the institution & much be done by their example and influence to encourage and facilitate the whole design in view; for which reason said Wheelock desires that the Trustees aforesaid may be vested with all that power therein which can consist with their distance from the same **KNOW YE THEREFORE**, that We considering the Premises and being willing to encourage the laudable & charitable design of spreading Christian

Knowledge among the Savages of our American Wilderness and also that the best means of Education be established in our Province of New Hampshire for the benefit of said Province, DO of our special grace certain knowledge and mere motion by and with the advice of our Council for said Province by these Presents Will, ordain, grant & constitute that there be a College erected in our said Province of New Hampshire by the name of DARTMOUTH COLLEGE for the education & instruction of Youth of the Indian Tribes in this Land in reading, writing & all parts of Learning which shall appear necessary and expedient for civilizing & christianizing Children of Pagans as well as in all liberal Arts and Sciences; and also of English Youth and any others, and the Trustees of said College may and shall be one body corporate and politick in deed action & name, and shall be called, named & distinguish'd by the Name of the TRUSTEES of DARTMOUTH COLLEGE And further we have willed given granted constituted and ordained and by this our present Charter of our special grace certain knowledge & mere motion with the advice aforesaid DO for us our heirs and successors forever will give grant constitute & ordain that there shall be in the said DARTMOUTH COLLEGE from henceforth and forever a body politick consisting of Trustees of said Dartmouth College And for the more full & perfect erection of said Corporation & body politick consisting of Trustees of Dartmouth College We of our special grace certain knowledge & mere motion DO by these Presents for us our Heirs & Successors make ordain constitute and appoint our trusty and well beloved JOHN WENTWORTH, Esquire Governor of our said Province and the GOVERNOR of our said Province of New Hampshire for the time being and our Trusty and well beloved THEODORE ATKINSON Esquire now President of our Council of our said Province GEORGE JAFFREY & DANIEL PIERCE Esquires both of our said Council and PETER GILMAN Esquire now Speaker of our House of Representatives in said Province & WILLIAM PITKIN, Esquire one of the Assistants of our Colony of Connecticut & our said trusty and well beloved ELEAZER WHEELOCK of Lebanon Doctor in Divinity, BENJAMIN POMROY of Hebron JAMES LOCKWOOD of Weathersfield TIMOTHY PITKIN & JOHN SMALLEY of Farmington & WILLIAM PATTEN of Hartford all of our said Colony of Connecticut Ministers of the Gospel. (the whole number of said Trustees consisting and hereafter forever to consist of TWELVE & no more) to be Trustees of said Dartmouth College in this our Province of New Hampshire And we do further of our special grace certain knowl-

edge and mere motion for us our Heirs and Successors will give grant and appoint that the said Trustees & their Successors shall forever hereafter be in deed act & name, a body corporate & politick & that they the said body corporate & politick shall be known & distinguished in all deeds grants bargains sales writings evidences or otherwise howsoever, & in all Courts forever hereafter plead and be impleaded by the Name of the Trustees of Dartmouth College and that the said Corporation by the name aforesaid shall be able and in law capable for the use of said Dartmouth College to have get acquire purchase receive hold possess and enjoy tenements hereditaments jurisdictions and franchizes for themselves and their Successors in fee simple or otherwise howsoever & to purchase receive or build any House or Houses or any other buildings as they shall think needful & convenient for the use of said Dartmouth College and in such Town in the western part of our said Province of New Hampshire as shall by said Trustees or the major part of them be agreed on their said agreement to be evidenced by an instrument in writing under their hands ascertaining the same And also to receive and dispose of any Lands goods chattels and other things of what nature soever for the use aforesaid And also to have accept and receive any rents profits annuities gifts legacies donations or bequests of any kind whatsoever for the use aforesaid so nevertheless that the yearly value of the Premises do not exceed the Sum of six thousand pounds Sterling¹ and therewith or otherwise to support and pay as the said Trustees or the major part of such of them as are regularly convened for that purpose shall agree the President Tutors and other Officers & Ministers of said Dartmouth College & also to pay all such Missionaries and Schoolmasters as shall be authorized appointed & employed by them for civilizing & christianizing & instructing the Indian Natives of this Land their several allowances & also their respective annual Salaries or allowances & all such necessary & contingent charges as from time to time shall arise & accrue relating to the said Dartmouth College And also to bargain sell let or assign Lands tenements or hereditaments goods, or chattels & all other things whatsoever by the name aforesaid in as full and ample a manner to all intents and purposes as a natural person or other body politick or corporate is able to do by the laws of our realm of Great Britain or of said province of New Hampshire And further of our special grace certain knowledge & mere motion to the intent that our said Corporation & body politick

¹ Subsequently amended so as to remove all limitations.

may answer the end of their erection & Constitution, & may have perpetual succession & continuance forever We do for us our heirs and Successors will give & grant unto the Trustees of Dartmouth College & to their Successors forever that there shall be once a year & every year a meeting of said Trustees held at said Dartmouth College at such time as by said Trustees or the major part of them at any legal meeting of said Trustees shall be agreed on the first meeting to be called by the said Eleazer Wheelock as soon as conveniently may be within one year next after the enrollment of these our Letters Patent at such time & place as he shall judge proper And the said Trustees or the major part of any seven or more of them shall then determine on the time for holding the annual Meeting aforesaid which may be alter'd as they shall hereafter find most convenient And we further order and direct that the said Eleazer Wheelock shall notify the time for holding said first meeting to be called as aforesaid by sending a letter to each of said Trustees & causing an advertizement thereof to be printed in the New Hampshire Gazette & in some publick News Paper printed in the Colony of Connecticut But in case of the Death or incapacity of the said Wheelock then such meeting to be notified in manner aforesaid by the Governor or Commander in Chief of our said Province for the time being And we do also for us our Heirs & successors hereby will give and grant unto the said Trustees of Dartmouth College aforesaid & to their Successors forever that when any seven or more of the said Trustees or their Successors are convened & met together for the service of said Dartmouth College at any time or times such seven or more shall be capable to act as fully & amply to all intents & purposes as if all the Trustees of said College were personally present— & all affairs & actions whatsoever under the care of the said Trustees shall be determined by the majority or greater number of those seven or more Trustees so convened & met together And we do further will ordain & direct that the President Trustees, Professors & Tutors & all such Officers as shall be appointed for the publick instruction & government of said College shall before they undertake the execution of their Offices or Trusts or within one year after take the Oaths & subscribe the declaration provided by an act of Parliament made in the first year of King George the first entitled “An act for the further security of his Majesty's Person & government & the succession of the Crown in the heirs of the late princess Sophia being Protestants, & for the extinguishing the hopes of the pretended Prince of Wales & his open & secret Abettors,” that is to say the President before the Governor of our

said Province for the time being or by one by him impowered to that service or by the President of our said Council & the Trustees Professors Tutors & other Officers before the President of said College for the time being who is hereby impower'd to administer the same an entry of all which shall be made in the Records of said College And we do for us our heirs & Successors hereby will give & grant full Power & Authority to the President hereafter by us named & to his Successors or in case of his failure to any three or more of the said Trustees to appoint other occasional meetings from time to time of the said seven Trustees or any greater number of them to transact any matter or thing necessary to be done before the next annual meeting and to order notice to the said seven or any greater number of them of the times & places of meeting for the service aforesaid by a letter under his or their hands of the same one month¹ before said meeting Provided always that no standing Rule or order be made or altered for the regulation of said College nor any President or Professor be chosen or displaced nor any other matter or thing transacted or done which shall continue in force after the then next annual meeting of said Trustees as aforesaid And further we do by these Presents for us our Heirs and Successors, create make constitute nominate & appoint our Trusty and well beloved ELEAZER WHELOCK Doctor in Divinity the FOUNDER of said College to be PRESIDENT of said DARTMOUTH COLLEGE and to have the immediate care of Education & government of such Students as shall be admitted into said DARTMOUTH COLLEGE for instruction & education and do will give & grant to him in said Office full power authority & right to nominate appoint constitute & ordain by his last will such suitable & meet person or Persons as he shall chuse to succeed him in the Presidency of said Dartmouth College & the person so appointed by his last Will to continue in Office vested with all the powers priviledges Jurisdiction & authority of a President of said Dartmouth College that is to say so long and untill such appointment by said last Will shall be disapproved by the Trustees of said Dartmouth College And we do also for us our heirs and Successors will give & grant to the said Trustees of said Dartmouth College & to their Successors forever or any seven or more of them convened as aforesaid that in the case of the ceasing or failure of a President by any means whatsoever that the said Trustees do elect nominate & appoint SUCH qualified person as they or the major part of any seven or more of them convened for that purpose as

¹ Amended so that a legal meeting may be held at such time and upon such notice as may be prescribed by the rules of the Trustees.

above directed shall think fit to be PRESIDENT of said DARTMOUTH COLLEGE and to have the care of the Education & government of the Students as aforesaid & in case of the ceasing of a President as aforesaid the Senior Professor or Tutor being one of the Trustees shall exercise the Office of a President untill the Trustees shall make choice of & appoint a President as aforesaid & such Professor or Tutor or any three or more of the Trustees shall immediately appoint a meeting of the body of the Trustees for the purpose aforesaid AND also we do will give and grant to the said Trustees convened as aforesaid that they elect nominate & appoint so many Tutors and Professors to assist the President in the Education & government of the Students belonging thereto as they the said Trustees shall from time to time & at any time think needful & serviceable to the interests of said Dartmouth College And also that the said Trustees or their Successors or the major part of any seven or more of them convened for that purpose as above directed shall at any time displace & discharge from the service of said Dartmouth College any or all such Officers & elect others in their room & stead as before directed And also that the said Trustees or their successors or the major part of any seven of them which shall convene for that purpose as above directed do from time to time as occasion shall require elect constitute & appoint a TREASURER a CLERK an USHER & a Steward for the said DARTMOUTH COLLEGE & appoint to them & each of them their respective businesses & trusts & displace & discharge from the service of said College such Treasurer Clerk Usher or Steward & to elect others in their room & stead which Officers so elected as before directed We do for us our heirs & successors by these Presents constitute & establish in their respective Offices & do give to each & every of them full power & Authority to exercise the same in said Dartmouth College according to the directions & during the pleasure of the said Trustees as fully & freely as any like Officers in any of our Universities Colleges or Seminaries of learning in our Realm of Great Britain lawfully may or ought to do, & also that the said Trustees & their Successors or the major part of any seven or more of them which shall convene for that purpose as is above directed as often as one or more of said Trustees shall die or by removal or otherwise shall according to their judgement become unfit or incapable to serve the interests of said College do as soon as may be after the Death removal or such unfitness or incapacity of such Trustee or Trustees elect & appoint such Trustee or Trustees as shall supply the place of him or them so dying or becoming incapable to serve the

interests of said College & every Trustee so elected & appointed shall by virtue of these presents & such election & appointment be vested with all the Powers & priviledges which any of the other Trustees of said College are hereby vested with And we do further Will ordain & direct that from & after the expiration of Two years from the enrollment of these Presents such vacancy or vacancies as may or shall happen by death or otherwise in the aforesaid number of Trustees shall be filled up by election as aforesaid so that when such vacancies shall be filled up unto the complete number of TWELVE Trustees Eight¹ of the aforesaid whole number of the body of Trustees shall be resident and respectable Freeholders of our said Province of New Hampshire & seven of said whole number shall be Laymen And we do further of our special grace certain knowledge and mere motion will give and grant unto the said Trustees of Dartmouth College that they and their Successors or the major part of any seven of them which shall convene for that purpose as is above directed may make & they are hereby fully impowered from time to time fully & lawfully to make and establish such Ordinances Orders & Laws as may tend to the good & wholesome government of the said College & all the Students & the several Officers & Ministers thereof & to the publick benefit of the same not repugnant to the Laws & Statutes of our Realm of GREAT BRITAIN or of this our Province of NEW HAMPSHIRE and not excluding any Person of any religious denomination whatsoever from free & equal liberty & advantage of Education or from any of the liberties and privileges or immunities of the said College on account of his or their speculative sentiments in Religion, & of his or their being of a religious profession different from the said Trustees of the said Dartmouth College And such Ordinances orders & Laws which shall as aforesaid be made We do by these presents for us our heirs & Successors ratify allow of, & confirm as good & effectual to oblige & bind all the Students & the several Officers & Ministers of the said College And we do hereby authorize & impower the said Trustees of Dartmouth College & the President Tutors & Professors by them elected & appointed as aforesaid to put such ordinances laws and orders in execution to all proper intents and purposes And we do further of our special grace certain knowledge & mere motion Will give & grant unto the said Trustees of said Dartmouth College for the encouragement of Learning and animating the Students of said College to diligence & industry & a laudable progress in Literature that they & their

¹ Subsequently amended so as to read *seven*.

Successors or the major part of any seven or more of them convened for that purpose as above directed do by the President of said College for the time being or any other deputed by them give & grant any such degree or degrees to any of the Students of the said College or any others by them thought worthy thereof as are usually granted in either of the Universities or any other College in our Realm of Great Britain & that they sign & seal Diplomas or certificates of such Graduations to be kept by the Graduates as perpetual memorials & testimonials thereof. AND we do further of our special grace certain knowledge & mere motion for us our heirs & Successors by these Presents give & grant unto the Trustees of said Dartmouth College & to their Successors that they & their Successors shall have a common SEAL under which they may pass all Diplomas or Certificates of degrees & all other affairs & business of & concerning the said College which shall be engraven in such a form and with such an inscription as shall be devised by the said Trustees for the time being or by the major part of any seven or more of them convened for the service of the said College as is above directed. And we do further for us our heirs & Successors give and grant unto the said Trustees of the said Dartmouth College & their Successors or to the major part of any seven or more of them convened for the service of the said College full power & Authority from time to time to nominate & appoint all other Officers & Ministers which they shall think convenient & necessary for the service of the said College not herein particularly named or mention'd which Officers & Ministers we do hereby impower to execute their Offices & Trusts as fully & freely as any of the Officers & Ministers in our Universities or Colleges in our REALM of GREAT BRITAIN lawfully may or ought to do. AND further that the generous Contributors to the support of this design of spreading the knowledge of the only true God and Saviour among the American Savages may from time to time be satisfied that their liberalities are faithfully disposed of in the best manner for that purpose & that others may in future time be encouraged in the exercise of the like liberality for promoting the same pious design it shall be the duty of the President of the said Dartmouth College & of his Successors annually or as often as he shall be thereunto desired or required to transmit to the Right honorable, honorable & worthy Gentlemen of the Trust in England before mentioned a faithful account of the improvement & disbursements of the several Sums he shall receive from the Donations & bequests made in England through the hands of said Trustees & also advise them of the general plans

laid and prospects exhibited as well as a faithful account of all remarkable occurrences in order if they shall think expedient that they may be published And this to continue so long as they shall perpetuate their board of Trust & there shall be any of the Indian Natives remaining to be proper Objects of that Charity AND lastly our express Will & pleasure is and we do by these presents for us our heirs and Successors give & grant unto the said Trustees of Dartmouth College & to their Successors forever that these our Letters Patent or the enrollment thereof in the SECRETARY'S Office of our Province of New Hampshire aforesaid shall be good & effectual in the Law to all intents & purposes against us our heirs and Successors without any other License Grant or Confirmation from us our heirs & successors hereafter by the said Trustees to be had & obtained notwithstanding the not writing or misrecital not naming or misnaming the aforesaid Offices Franchises Priviledges Immunities or other the Premises or any of them and notwithstanding a writ of Ad quod Damnum hath not issued forth to enquire of the Premises or any of them before the ensealing hereof any Statute Act Ordinance or Provision or any other matter or thing to the contrary notwithstanding TO HAVE AND TO HOLD ALL & singular the Privileges Advantages Liberties Immunities and all other the Premises herein & hereby granted & given or which are meant mentioned or intended to be herein & hereby given and granted unto them the said TRUSTEES of DARTMOUTH COLLEGE and to their Successors forever. IN TESTIMONY whereof We have caused these our Letters to be made Patent and the publick Seal of our said Province of NEW HAMPSHIRE to be hereunto affixed WITNESS our Trusty and well beloved JOHN WENTWORTH Esquire Governor and Commander in Chief in and over our said Province &c. this THIRTEENTH day of December in the Tenth year of our Reign and in the year of our Lord one thousand seven hundred and Sixty nine.

By his Excellency's Command }
with advice of Council }

THEODORE ATKINSON, Sec'y

Province of New Hampshire Decemb^r 18th 1769.

Recorded in the book of Charters

Lib: 4^o Fol. 22 to 23 both inclusive.

Per

THEODORE ATKINSON, SEC'Y

JOHN WENTWORTH.

HISTORICAL NOTE

DARTMOUTH COLLEGE is the outgrowth of a school which the Reverend Eleazer Wheelock opened in his home at Lebanon, Conn., December 18, 1754, for the Christian education of Indian youth. The school was known as Moor's Indian Charity School, so named from Joshua Moor, who contributed a house and two acres of land.

Funds for the maintenance of the school were received from various sources, — from private individuals, from the General Courts of Massachusetts Bay and of New Hampshire, and from Great Britain, where the enterprise had awakened the deepest interest. From the latter source an endowment was secured, chiefly through the efforts of Samsom Occom, the Indian preacher, one of Dr. Wheelock's students, who was commissioned to make a tour of England and Scotland for this purpose in 1765. The sum of ten thousand pounds was thus raised, and committed to the charge of a board of trustees with the Earl of Dartmouth at its head. As the result of this endowment it was determined by Dr. Wheelock to enlarge the purpose of the school especially to reach "a greater proportion of English youth," and to change its location. Various proposals for a site were made, but after careful investigation the site chosen was the township of Hanover, in the region of Cowas or Coös, in the province of New Hampshire. Apart from the nearness of this site to the Canadian Indians, the determining reason for the choice seems to have been the attractiveness of the location, and the fact that it was the natural center of "more than two hundred towns, chartered, settled, or about to be settled." Removal to the Province of New Hampshire also gave the assurance of a charter, which it had thus far been difficult to obtain.

The draft of the charter prepared by Dr. Wheelock received important modifications from the Governor of the Province, John Wentworth. In particular he rejected the suggestion of a coördinate board of trustees in Great Britain; he gave to the college the name of Lord Dartmouth, its most active patron in Great Britain, although Wheelock had proposed to the Governor to call it by the name of Wentworth; and instead of incorporating it as a "school" or "academy," he

adopted a hint from Wheelock's postscript and made it a "college." The first board of trustees consisted of the Governor with three of his council, the speaker of the New Hampshire House of Representatives, one member of the Connecticut Colonial government, and six Connecticut clergymen selected by Dr. Wheelock.

Dr. Wheelock was elected president of the college, with Mr. Bezael Woodward, a graduate of Yale in 1764, as his associate. The first class of four students was graduated in 1771, the Commencement being attended by the Governor of the Province of New Hampshire and a company of gentlemen from Portsmouth, who made their way in part through almost trackless forests.

Two events in the early history of the college materially affected its character and growth. First, the gradual withdrawal of the support of its patrons in Great Britain, whose interest lay chiefly in the education of Indians; second, the lawsuit between the college and the state of New Hampshire for the control of the college, which resulted in a final decision by the Supreme Court of the United States in favor of the Trustees of Dartmouth College. The decision in "The Dartmouth College Case" was rendered in February, 1819. Since the reestablishment of the college by this decision, its history has followed the general course of educational progress in New England.

Other institutions have from time to time been associated with or incorporated into the college.

Moor's Indian Charity School was made an independent institution when the college was founded. The school was maintained as late as 1849. It still has a legal existence with the title — "The President of Moor's Charity School." The trustees are the same in person with those of the college, though forming a separate corporation.

The Dartmouth Medical School dates from the establishment in 1798 of a professorship of medicine in the college, first filled by Dr. Nathan Smith, who was instrumental in its establishment. The school is under the general control of the Trustees of Dartmouth College, by which body degrees are conferred, but the management of its affairs is committed to the Medical Faculty. Associated with the Medical College is the Mary Hitchcock Hospital (1893), the memorial gift of Hiram Hitchcock, Esq., of Hanover.

The Chandler School of Science and the Arts, established in 1851 by a resolution of the trustees, in acceptance of a sum bequeathed to them in trust by Abiel Chandler, Esq., "for the establishment and support of a permanent department or school of instruction in the col-

lege, in the practical and useful arts of life," was more formally incorporated into the College by the joint action of the Trustees of the College and the Visitors of the Chandler School in 1893, and is now known as the Chandler Scientific Course in the College, leading to the degree of B.S.

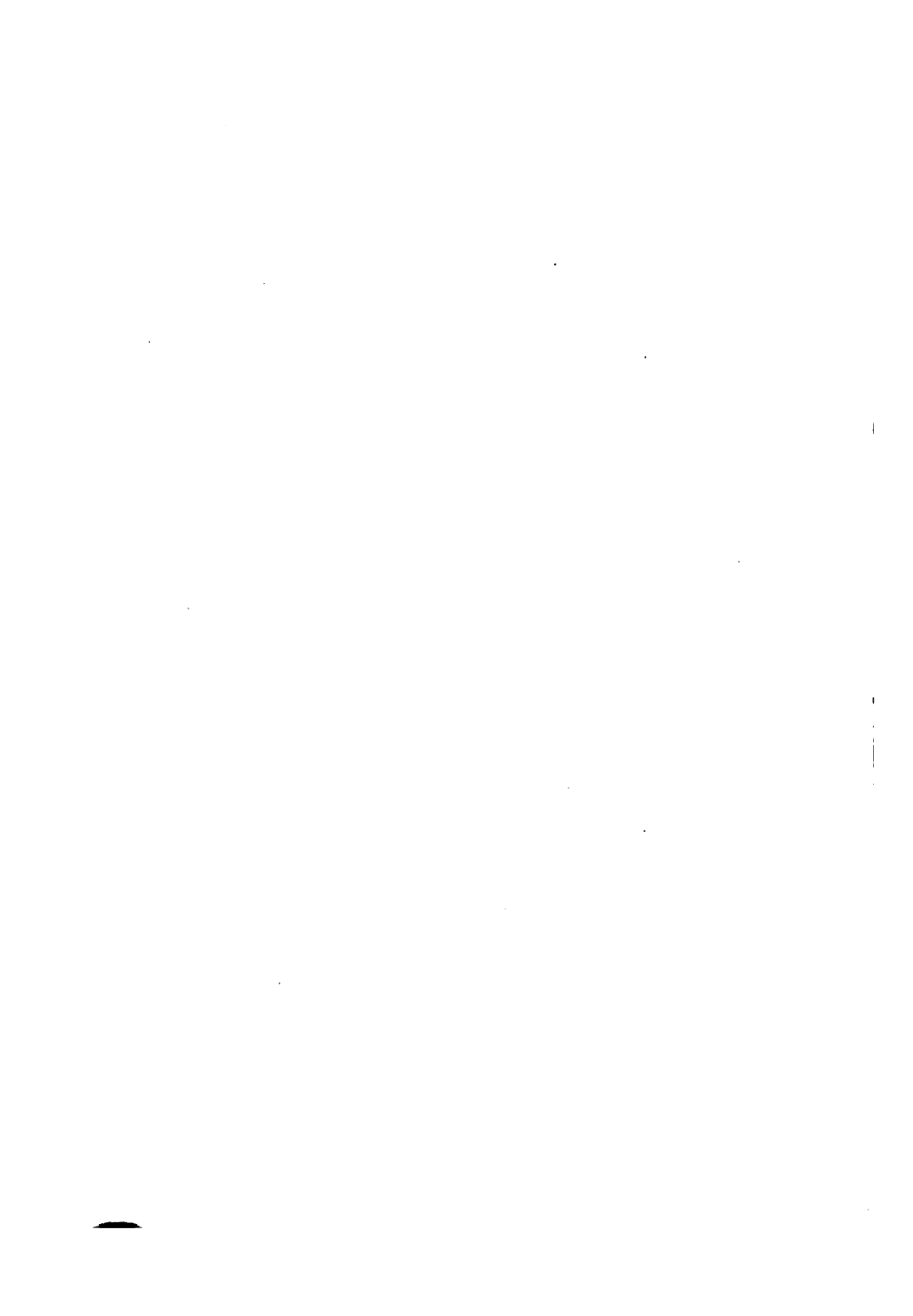
The Thayer School of Civil Engineering, established in 1867 by the bequest of General Sylvanus Thayer, Class of 1807, is essentially a graduate school, covering a course of two years, and conferring the degree of Civil Engineer. The funds of the School are in charge of the Trustees of the College; otherwise its affairs are managed by a board of overseers, which is a close corporation.

The Amos Tuck School of Administration and Finance, established in 1900 by Mr. Edward Tuck, Class of 1862, as a memorial to his father, Honorable Amos Tuck, Class of 1835, a Trustee of the College, 1857 to 1866, is also a graduate school covering a course of two years. It is the object of the School to train college graduates who desire to engage in affairs rather than to enter the professions. The School is administered by the Trustees of the College.

The presidency of the college has been held as follows:

Eleazer Wheelock, 1769-1779.	Bennett Tyler, 1821-1828.
John Wheelock, 1779-1815.	Nathan Lord, 1828-1863.
Francis Brown, 1815-1820.	Asa Dodge Smith, 1863-1877.
Daniel Dana, 1820-1821.	Samuel Colcord Bartlett, 1877-1892.
William Jewett Tucker, 1893-.	

DARTMOUTH COLLEGE



TRUSTEES OF DARTMOUTH COLLEGE

AND OF MOOR'S CHARITY SCHOOL

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

HIS EXCELLENCY NAHUM JOSIAH BACHELDER, A.M.

(*ex officio*) *Andover, N. H.*

HENRY FAIRBANKS, PH.D. *St. Johnsbury, Vt.*

WILLIAM MARTIN CHASE, LL.D. *Concord, N. H.*

CYRUS RICHARDSON, D.D. *Nashua, N. H.*

FRANK SHERWIN STREETER, A.B. *Concord, N. H.*

CHARLES FREDERICK MATHEWSON, LL.B.

New York, N. Y.

EDWARD DANA REDINGTON, A.M. *Chicago, Ill.*

BENJAMIN AMES KIMBALL, B.S. *Concord, N. H.*

JOHN ROBIE EASTMAN, PH.D. *Andover, N. H.*

WILLIAM HENRY DAVIS, D.D. *Newton, Mass.*

MELVIN OHIO ADAMS, A.M. *Boston, Mass.*

TREASURER

CHARLES PARKER CHASE, A.M. *Hanover, N. H.*

EX OFFICIO TRUSTEES OF THE COLLEGE IN RELATION TO FUNDS GIVEN BY THE STATE OF NEW HAMPSHIRE

COUNCILLORS

HON. J. FRANK SEAVEY *Dover, N. H.*

HON. ALFRED A. COLLINS *Danville, N. H.*

HON. FRANK E. KALEY *Milford, N. H.*

HON. SETH M. RICHARDS *Newport, N. H.*

HON. A. CROSBY KENNETT *Conway, N. H.*

THE PRESIDENT OF THE SENATE

HON. CHARLES W. HOITT *Nashua, N. H.*

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

HON. HARRY M. CHENEY *Lebanon, N. H.*

THE CHIEF JUSTICE OF THE SUPREME COURT

HON. FRANK N. PARSONS *Franklin, N. H.*

VISITORS ON THE CHANDLER FOUNDATION

DAVID HERBERT ANDREWS, B.S. *Newton Centre, Mass.*ROBERT GORDON PIKE, B.S. *Dover, N. H.*

STANDING COMMITTEES OF THE TRUSTEES

COMMITTEE ON FINANCE,

Messrs. Kimball, Chase, Mathewson, Streeter, Adams.

ON INSTRUCTION,

Messrs. Richardson, Fairbanks, Redington, Eastman, Davis.

ON EQUIPMENT,

Messrs. Fairbanks, Eastman, Redington.

ON BUILDINGS AND IMPROVEMENTS,

Messrs. Streeter, Kimball, Mathewson, Davis, Adams.

ON DEGREES,

Messrs. Mathewson, Eastman, Davis.

ON RELATION OF COLLEGE TO STATE,

Messrs. Streeter, Richardson, Eastman.

ON RELATION OF COLLEGE TO ALUMNI,

Messrs. Redington, Mathewson, Adams.

ON LEGAL MATTERS,

Messrs. Chase, Streeter, Mathewson.

The President of the College is a member *ex officio* of the Committee on Finance, on Instruction, on Equipment, on Buildings and Improvements, and on Degrees.

THE COLLEGE. ADMINISTRATION

PRESIDENT — William Jewett Tucker — Administration Building,
10 A.M. to 12 M., each week day.

ACTING PRESIDENT — John King Lord.

TREASURER — Charles Parker Chase — Bank Building, 10.30 to
11.30 A.M., 1.30 to 2.30 P.M., each week day.

SECRETARY TO THE PRESIDENT — Ernest Martin Hopkins — Ad-
ministration Building, 9 A.M. to 12 M., each week day, 2 to 3.30 P.M.,
each week day except Saturday.

DEAN OF ACADEMIC FACULTY — Charles Franklin Emerson — Ad-
ministration Building, 9.30 to 11.30 A.M., each week day, 2 to 3 P.M.,
each week day except Wednesday and Saturday.

REGISTRAR — Howard Murray Tibbetts — Administration Building,
9.30 to 11 A.M., each week day, 1.30 to 2.30 P.M., each week day
except Wednesday and Saturday.

DIRECTOR OF DEPARTMENT OF PEDAGOGY — Franklin Crocker
Lewis — Reed Hall.

CHAIRMAN OF COMMITTEE ON GRADUATE INSTRUCTION — Charles
Darwin Adams — 1 N. Park St.

LIBRARIAN — Marvin Davis Bisbee — Wilson Hall, 9 to 12 A.M., 1 to
5 P.M., each week day.

MEDICAL DIRECTOR — Howard Nelson Kingsford — Bank Building,
7 to 8 P.M., Tuesdays and Thursdays; other week days 4.30 to 6 P.M.

SUPERINTENDENT OF BUILDINGS — Alexander Anderson McKenzie.
Edgar Hayes Hunter (Acting) — Administration Building, 8 to
9 A.M., 11.30 A.M. to 12 M., each week day, 5.30 to 6 P.M., each week
day except Saturday.

SECRETARY OF COLLEGE CLUB — Henry Nelson Teague — College
Hall, 7.15 to 8 A.M.; 12 to 1 P.M. and 6 to 7 P.M. each week day.

OFFICERS OF ADMINISTRATION AND INSTRUCTION¹

-
- WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.
43 College St.
- JOHN KING LORD, PH.D., ACTING PRESIDENT *of the Faculty
in absence of the President.* 37 College St.
- CHARLES FRANKLIN EMERSON, A.M., DEAN *of the Aca-
demic Faculty.* 33 College St.
-
- CHARLES HENRY HITCHCOCK, PH.D., LL.D., *Hall Pro-
fessor of Geology and Curator of Butterfield Museum.*
15 E. Wheelock St.
- GABRIEL CAMPBELL, M.P.D., D.D. *Stone Professor of Intel-
lectual and Moral Philosophy.* 29 N. Main St.
- JOHN KING LORD, PH.D., *Daniel Webster Professor of the
Latin Language and Literature.* 37 College St.
- FRANK ASBURY SHERMAN, M.S., *Professor of Mathematics
on the Chandler Foundation.* 37 N. Main St.
- CHARLES FRANCIS RICHARDSON, PH.D., *Winkley Pro-
fessor of the English Language and Literature.* 6 School St.
- MARVIN DAVIS BISBEE, B.D., *Librarian and Professor of
Bibliography.* 11 W. Wheelock St.
- THOMAS WILSON DORR WORTHEN, A.M., *Cheney Pro-
fessor of Mathematics.* 11 Webster Ave.
- EDWIN JULIUS BARTLETT, A.M., M.D., *New Hampshire
Professor of Chemistry.* 8 W. Wheelock St.
- JAMES FAIRBANKS COLBY, A.M., LL.D., *Parker Professor
of Law and Political Science.* 2 Elm St.

¹ Arranged with the exception of the President, Acting President, and Dean according to College Seniority.

JOHN VOSE HAZEN, C.E., *Woodman Professor of Civil Engineering and Graphics on the Chandler Foundation.*

33 N. Main St.

CHARLES DARWIN ADAMS, PH.D., *Lawrence Professor of the Greek Language and Literature.*

1 N. Park St.

JUSTIN HARVEY SMITH, A.M., *Professor of Modern History.*

The Hanover Inn.

(On leave of absence for second semester.)

CHARLES HENRY MORSE, MUS. BAC., *Musical Director.*

The Hanover Inn.

DAVID COLLIN WELLS, A.B., *Professor of Sociology.*

20 N. Main St.

ROBERT LONGLEY TAYLOR, PH.D., *Assistant Professor of French.*

30 N. Main St.

WILLIAM PATTEN, PH.D., *Professor of Zoölogy.*

15 Webster Ave.

GEORGE DANA LORD, A.M., *Associate Professor of Greek and of Greek Archæology.*

The Hanover Inn.

HERBERT DARLING FOSTER, A.M., *Professor of History.*

9 Webster Ave.

FRANK GARDNER MOORE, PH.D., *Associate Professor of Latin and of Roman Archæology.*

1 Occom Ridge.

WARREN AUSTIN ADAMS, PH.D., *Assistant Professor of German.*

16 Occom Ridge.

FRED PARKER EMERY, A.M., *Willard Professor of Rhetoric and Oratory.*

13 Webster Ave.

LOUIS HENRY DOW, A.M., *Professor of French.*

2 Occom Ridge.

HARRY EDWIN BURTON, PH.D., *Professor of Latin.*

5 Occom Ridge.

JOHN HIRAM GEROULD, PH.D., *Instructor in Zoölogy.*

35 College St.

GEORGE RAY WICKER, PH.D., *Assistant Professor of Economics.*

20 Occom Ridge.

FRANK HAIGH DIXON, PH.D., *Professor of Economics.*

24 Occom Ridge.

- GORDON FERRIE HULL, PH.D., *Appleton Professor of Physics.* 4 W. Wheelock St.
- CHARLES HENRY RICHARDSON, PH.D., *Instructor in Mineralogy and Geology.* 4 College St.
- EDGAR VAN DEUSEN, A.M., *Instructor in Public and Private Finance.* 25 S. Main St.
- ERNEST FELIX LANGLEY, A.M., *Assistant Professor of the Romance Languages (French and Italian).* 27 E. Wheelock St.
- ASHLEY KINGSLEY HARDY, PH.D., *Assistant Professor of German and Instructor in Old English.* 30 N. Main St.
- GEORGE RICHARD LYMAN, A.M., *Instructor in Botany.* 30 N. Main St.
- HERMAN HARRELL HORNE, PH.D., *Assistant Professor of Philosophy and Pedagogy.* 5 N. Park St.
- RICHARD WELLINGTON HUSBAND, A.M., *Assistant Professor of Greek and of Classical Philology.* 9 N. Park St.
- CHARLES ARTHUR HOLDEN, C.E., *Instructor in Mathematics, and Assistant in Graphics.* 30 N. Main St.
- NORMAN EVERETT GILBERT, PH.D., *Assistant Professor of Physics.* 8 Hubbard House.
- CRAVEN LAYCOCK, A.B., *Assistant Professor of Oratory on the Evans Foundation.* 18 Occom Ridge.
- SIDNEY BRADSHAW FAY, PH.D., *Assistant Professor of History.* 33 College St.
- PRESCOTT ORDE SKINNER, A.M., *Instructor in the Romance Languages (French and Spanish).* 24 N. Main St.
- WILLIAM KILBORNE STEWART, A.M., *Instructor in German.* 4 W. Wheelock St.
- CHARLES ERNEST BOLSER, PH.D., *Instructor in Chemistry.* 4 W. Wheelock St.
- JOHN MERRILL POOR, A.B., *Instructor in Astronomy.* 30 N. Main St.
- GEORGE BENSON WESTON, A.M., *Instructor in the Romance Languages (French and Spanish).* 36 N. Main St.
- WILLIAM HUGH MITCHELL, A.B., *Instructor in Mathematics and History.* 2 Elm St.

- KAN-ICHI ASAKAWA, PH.D., *Lecturer on The Far East.*
20 Occom Ridge.
- HOMER EATON KEYES, B.L., *Instructor in English.*
(On leave of absence.)
- FRANKLIN CROCKER LEWIS, A.M., *Instructor in Pedagogy.*
35 N. Main St.
- LEON BURR RICHARDSON, A.M., *Instructor in Chemistry.*
The Hanover Inn.
- AXEL EBENEZER VESTLING, A.B., *Instructor in German.*
27 N. Main St.
- HAROLD MARTIN BOWMAN, LL.B., PH.D., *Instructor in
Political Science.*
The Hanover Inn.
- ROBERT LEIGHTON SCALES, A.B., *Instructor in English.*
4 W. Wheelock St.
- JULIUS ARTHUR BROWN, A.B., *Instructor in Physics.*
W Wilder Hall.
- HENRY NICHOLS SANBORN, A.M., *Instructor in English.*
7 Hubbard House.
-

- ETTA MATTOCKS NEWELL, *Assistant Librarian.*
The Hanover Inn.
- HOWARD NELSON KINGSFORD, M.D., *Medical Director and
Lecturer on Hygiene.*
14 Occom Ridge.
- JOHN WILLIAM BOWLER, *Instructor in Physical Culture and
Director of the Gymnasium.*
22 Occom Ridge.
- ALEXANDER ANDERSON MCKENZIE, B.S., *Superintendent
of Buildings.*
4 W. Wheelock St.
- GEORGE HILL EVANS, B.L., *Cataloguer in the Library.*
7 N. Park St.
- FREDERICK WARREN JENKINS, A.B., *Superintendent of
Reference Rooms.*
The Hanover Inn.
- HOWARD MURRAY TIBBETTS, A.B., *Registrar.*
4 Wentworth St.

- HENRY NELSON TEAGUE, M.C.S., *Secretary of the College Club and Comptroller of the Dining Association.* 14 College Hall.
- ARTHUR PERRY FAIRFIELD, A.B., *Manager of The College Inn.* The Hanover Inn.
- ERNEST MARTIN HOPKINS, A.B., *Secretary to the President.* 4 Wentworth St.
- EDGAR HAYES HUNTER, C.E., *Acting-Superintendent of Buildings.* 4 Wentworth St.
- AZRO KARL SKINNER, A.B., *Secretary of the Young Men's Christian Association.* W Wilder Hall.
-

STANDING COMMITTEES OF THE FACULTY

ADMINISTRATION — The President, the Acting President, the Dean, Professor Richardson (Senior class-officer), Professor Horne (Junior class-officer), Professor Laycock (Sophomore class-officer), Professor Burton (Freshman class-officer).

ADMISSION — Professors Sherman (chairman), G. D. Lord, Foster, Dow, Hardy, Messrs. Lewis, Lyman, the Dean (*ex officio*).

INSTRUCTION — Professors Emery (chairman), Worthen, Moore, Langley, Hardy, Mr. Holden, the Dean (*ex officio*).

LIBRARY — Professors Richardson (chairman), Hitchcock, Moore, Bisbee, Husband, Fay, Mr. Skinner.

ATHLETICS — Professors Bartlett (chairman), Patten, Dr. Bolser.

ORGANIZATIONS OTHER THAN ATHLETIC — Professors Dixon (chairman), Wicker, Mr. Stewart.

COLLEGE HALL — Professors Bartlett (chairman), Dixon, Mr. Scales.

GRADUATE INSTRUCTION — Professors C. D. Adams (chairman), Campbell, Colby, Hull, Husband, Mr. Lewis.

MEMBER OF DINING HALL COMMITTEE — Mr. Scales.

BOARD OF PREACHERS 1903-1904

THE PRESIDENT OF THE COLLEGE.

PROFESSOR FRANCIS BROWN, D.D., *Union Theological
Seminary, New York, N. Y.*

REV. HARRY PINNEO DEWEY, D.D., *Church of the Pilgrims,
Brooklyn, N. Y.*

REV. LYMAN ABBOTT, D.D., *New York, N. Y.*

PROFESSOR JOHN WINTHROP PLATNER, *Andover Theo-
logical Seminary, Andover, Mass.*

REV. CHARLES CUTHBERT HALL, D.D., *President Union
Theological Seminary, New York, N. Y.*

RIGHT REV. ETHELBERT TALBOT, D.D., *Bishop of
Central Pennsylvania.*

REV. GAINS GLENN ATKINS, A.B., . . *First Church,
Burlington, Vt.*

REV. WILLIAM FRASER McDOWELL, D.D., *Secretary
Methodist Education Society, New York.*

REV. EDWARD EVERETT HALE, LL.D., S.T.D., *South
Congregational Church, Boston, Mass.*

The term of service of each Preacher is from two to four Sundays.

The Preacher of the day is at Bartlett Hall on Sunday afternoon
at four-thirty o'clock for personal interviews with the students.

STUDENTS

FELLOW

Buck, Arthur Ela, A. B. 1901. *Hannover, Germany*

GRADUATE STUDENTS

Crosse, Franklin	<i>Lewiston, Me.</i>	25 S. Main St.
A.B. 1903. German.		
Griggs, Leland	<i>Hanover, N. H.</i>	9 Pleasant St.
A.B. 1902. Biology: <i>Assistant in Laboratory.</i>		
Haney, Lewis Henry	<i>Normal, Ill.</i>	41 S. Main St.
A.B. 1903. Economics.		
Kidger, Horace	<i>Everett, Mass.</i>	6 Hubbard
B.L. 1903. History: <i>Assistant.</i>		
Lambert, Avery Eldorus	<i>Hanover, N. H.</i>	35 College St.
B.S. 1902. Biology: <i>Assistant in Laboratory.</i>		
Patch, George William	<i>Shelburne Falls, Mass.</i>	11 Sanborn
A.B. 1903. Greek.		
Ruppel, Henry Erich Kasemere	<i>Brooklyn, N. Y.</i>	25 S. Main St.
A.B. 1903. Physics.		
Smith, Harold Elno	<i>Lebanon, N. H.</i>	V Wilder Hall
A.B. 1903. Physics: <i>Assistant in Laboratory.</i>		
Woodbury, William	<i>Hanover, N. H.</i>	35 N. Main St.
A.B. Bowdoin, 1900. Latin.		

NON-RESIDENT GRADUATE STUDENTS

Carley, Neale Severance	<i>Barre, Vt.</i>
A.B. 1902. Greek, German.	
Clark, Eugene Francis	<i>Auburndale, Mass.</i>
A.B. 1901. History.	
Farwell, Herman Waldo	<i>Weymouth, Mass.</i>
A.B. 1902. Mathematics, Chemistry.	
Goodhue, Everett Walton	<i>Westminster West, Vt.</i>
A.B. 1900. Sociology.	

Heald, Franklin Ernest	<i>Walpole, N. H.</i>
B.S. 1897. Pedagogy.	
Hyatt, Willard Isaac	<i>Wayland, Mass.</i>
A.B. 1899. History.	
Jackson, Andrew	<i>Lyndonville, Vt.</i>
A.B. 1903. History.	
Phillips, John Lewis	<i>Andover, Mass.</i>
A.B. 1894. Latin.	
Robinson, Charles Frederick	<i>Clinton, Conn.</i>
A.B. 1890. Philosophy.	
Smith, James Francis	<i>Lyndonville, Vt.</i>
A.B. 1903. History.	
Stetson, Orlando Samuel, Jr.	<i>Syracuse, N. Y.</i>
B.S. 1901. Mathematics.	
White, Carroll Henry	<i>South Walden, Vt.</i>
B.S. 1896. Philosophy.	

UNDERGRADUATES

SENIORS

Name	Residence	Room
Austin, David Sands, 2d	<i>North Berwick, Me.</i>	Dragon House
Bartlett, Edwin Rice	<i>Hanover, N. H.</i>	8 W. Wheelock St.
Barton, Ralph Martin	<i>Hanover, N. H.</i>	25 N. Main St.
Blair, Hugh	<i>Dorchester, Mass.</i>	10 Sanborn
Blanchard, Phillips Staples	<i>Peacham, Vt.</i>	Φ Δ Θ House
Bolster, Arthur Stanley	<i>Nashua, N. H.</i>	25 S. Main St.
Bowles, Amasa	<i>Plymouth, N. H.</i>	22 Hallgarten
Boyle, Bernard Leo	<i>Manchester, Mass.</i>	17 Sanborn
Brackett, Karl Starkey	<i>Westboro, Mass.</i>	The Hanover Inn
Brayton, Bascom Backus	<i>Hartford, N. Y.</i>	5 College St.
Brennon, Elmer Garfield	<i>Lowell, Mass.</i>	17 Reed
Brewer, Robert DuBois	<i>Brookline, Mass.</i>	Dragon House
Brotherhood, James Stewart	<i>Brooklyn, N. Y.</i>	Dragon House
Bullock, Matthew Washington	<i>Everett, Mass.</i>	11 Elm
Burdett, Owen Long	<i>Wakefield, Mass.</i>	B Θ Π House
Callmann, Herbert	<i>New York, N. Y.</i>	9 Richardson
Carr, William Howes	<i>Concord, N. H.</i>	5 College St.
Charron, Arthur Isaac	<i>Leominster, Mass.</i>	21 Sanborn
Chase, Harry Woodbury	<i>Groveland, Mass.</i>	15 Reed
Clary, Henry Charles	<i>Hallowell, Me.</i>	17 Wentworth
Cobb, Percival Bartlett	<i>Newton Upper Falls, Mass.</i>	13 Thornton
Colesworthy, Daniel Clement	<i>Hyde Park, Mass.</i>	1 Dartmouth

Name	Residence	Room
Collins, Francis Joseph	<i>Worcester, Mass.</i>	26 Sanborn
Cronin, John Walter	<i>East Weymouth, Mass.</i>	6 Fayerweather
Cummings, Edward John	<i>Littleton, N. H.</i>	1 College
Dailey, Michael Andrew	<i>North Easton, Mass.</i>	24 Fayerweather
Darrow, Paul Everett	<i>Chicago, Ill.</i>	20 Richardson
Davis, Charles Eleazer	<i>Tilton, N. H.</i>	13 Reed
Doonan, John Francis	<i>Greenville, N. H.</i>	8 College
Drew, Hedley Garland	<i>Chicago, Ill.</i>	44 College St.
Durgin, Linwood Story	<i>Lewiston, Me.</i>	Dragon House
Edgerly, Ferdinand Bosher	<i>Manchester, N. H.</i>	7 Dartmouth
Fauteaux, Louis Dearborn	<i>Hanover, N. H.</i>	10 Sanborn
Favor, Paul Gordon	<i>Lowell, Mass.</i>	17 Reed
Fellows, John Hibbard	<i>Tilton, N. H.</i>	13 Reed
Fiske, Robert Chester	<i>Hyde Park, Mass.</i>	24 Richardson
Fletcher, John Storrs	<i>Chattanooga, Tenn.</i>	X ♠ House
Ford, David Emerson	<i>East Weymouth, Mass.</i>	15 Thornton
Foster, Amos Parker	<i>Keene, N. H.</i>	C. and G. House
Frost, Gordon Bennett	<i>Fort Ann, N. Y.</i>	10 Sanborn
Gale, Arthur Pinkham	<i>Jackson, N. H.</i>	C. and G. House
Gormly, Clarence Wallace	<i>Troy, N. Y.</i>	Dragon House
Gray, William Renssalaer	<i>Aurora, Ill.</i>	13 College
Hall, Henry Monroe	<i>Dover, N. H.</i>	24 Richardson
Hamblen, Clarence Bryant	<i>East Lexington, Mass.</i>	2 Wentworth
Hamblin, Frank Samuel	<i>Somerville, Mass.</i>	C. and G. House
Hardy, Francis Hathaway	<i>Dover, N. H.</i>	1 Proctor
Hastings, Alfred Bryant	<i>Nashua, N. H.</i>	Δ T Δ House
Hatch, Albert Ruyter	<i>Greenland, N. H.</i>	35 Fayerweather
Hatch, Jared Platt	<i>Hanover, N. H.</i>	8 W. South St.
Herman, Earl Leslie	<i>Chicago, Ill.</i>	23 Crosby
Hill, Albert Lyon	<i>Derry, N. H.</i>	22 Hallgarten
Hills, Gay Elijah	<i>Swansey, N. H.</i>	2 Dartmouth
Hinman, Burritt Havilah	<i>North Stratford, N. H.</i>	25 S. Main St.
Hobbs, Don Purcell	<i>West Ossipee, N. H.</i>	C. and G. House
Holton, Harry Irving	<i>Chicago, Ill.</i>	19 Crosby
Jackson, Delbert Linscott	<i>Chelsea, Mass.</i>	Dragon House
Johnson, Harry	<i>Middlefield, Mass.</i>	Dragon House
Kimball, Arthur William	<i>East Fairfield, Me.</i>	Δ T Δ House
Kimball, Donald Gilman	<i>Manchester, N. H.</i>	Dragon House
Kirker, John Henry, Jr.	<i>Albany, N. Y.</i>	25 S. Main St.
Kneeland, William Aiken	<i>Roxbury, Mass.</i>	X ♠ House
Lampee, Charles Irving	<i>Chelsea, Mass.</i>	Dragon House
Laskey, Edward Philip	<i>Dover, N. H.</i>	7 Crosby
Leveroni, Louis Edward	<i>Keene, N. H.</i>	13 Sanborn
Lewis, George Alexander	<i>Hingham, Mass.</i>	2 Dartmouth
Lockwood, Charles Mowry	<i>Hyde Park, Mass.</i>	♠ Δ ♠ House
Logan, Donald Brigham	<i>Worcester, Mass.</i>	Dragon House

Name	Residence	Room
MacKeen, William Duncan	Peabody, Mass.	25 S. Main St.
McKennis, Herbert	Albany, N. Y.	46 Fayerweather
McKnight, Charles Francis	Hiawatha, Kan.	K K K House
Maguire, Peter Joseph	South Hadley Falls, Mass.	37 S. Main St.
Mahoney, William Henry	Peabody, Mass.	Norwich, Vt.
Mangurian, Armen Steven	Hadjin, Turkey	13 Hallgarten
Marquess, John Miller	Helena, Ark.	18 Wentworth
Marshall, Robert Eliot	Boston, Mass.	C. and G. House
Mathes, Maurice Everett	Dover, N. H.	7 Crosby
Maynard, James Tyler, Jr.	Bellows Falls, Vt.	C. and G. House
Meyers, Jerome	Albany, N. Y.	3 Daxmouth
Morse, Park Ashley	Plymouth, N. H.	3 Bartlett
Moseley, Robert Brainard	Hyde Park, Mass.	B Θ Π House
Mower, Penfield	Rockford, Ill.	19 Richardson
Muchemore, Harrie Langdon	Portsmouth, N. H.	17 Thornton
Nichols, Herbert Nathan Thomas	Norwich, Vt.	16 Hallgarten
Nolan, John Harrison	Andover, Mass.	Δ T Δ House
Norton, Daniel Capron	New Britain, Conn.	7 Dartmouth
Nutt, Harry Garfield	Worcester, Mass.	K K K House
Palmer, Harold Viall	Reading, Mass.	41 Fayerweather
Parker, Murray Nelson	Littleton, N. H.	16 College
Perkins, Wayne Arthur	Newmarket, N. H.	K K K House
Perry, Louis Irving	North Billerica, Mass.	17 College
Phelps, Olney Draper	Warren, Mass.	9 College St.
Pierce, Henry Kingsbury	Oak Park, Ill.	♠ Δ Θ House
Robinson, Edward Kilburn	Roxbury, Mass.	11 Sanborn
Roby, Harrison George	Whitewater, Wis.	15 N. Park St.
Rock, Mathew, Jr.	New York, N. Y.	21 Richardson
Rolfe, Hayward Percival	Newtonville, Mass.	C. and G. House
Rollins, Dillwyn Sidney	Newburyport, Mass.	C. and G. House
Russell, Walter Hall	Plymouth, N. H.	17 College
Safford, Henry Barnard	West Stafford, Conn.	27 College
Sanborn, Bruce Walter	St. Paul, Minn.	C. and G. House
Sayles, Arthur Earle	Uxbridge, Mass.	17 College
Sewall, Arthur Eugene	York Village, Me.	K K K House
Sexton, Ralph Emerson	Nashua, N. H.	C. and G. House
Shaw, William Thomas	Middleboro, Mass.	♠ Δ Θ House
Slayton, William Harvey	Lebanon, N. H.	X ♠ House
Stowell, Franklin Henry	Worcester, Mass.	15 N. Park St.
Streeter, Thomas Winthrop	Concord, N. H.	1 Proctor
Sturtevant, Mills Gove	Manchester, N. H.	7 Dartmouth
Terrien, Albert Bernard	Nashua, N. H.	♠ Δ Θ House
Turner, Leigh Cilley	Ross, O.	20 S. Main St.
Vail, LeRoy Benjamin	Brooklyn, N. Y.	Dragon House
Walker, James Christie	Barre, Vt.	29 Sanborn
Watson, John Henry, Jr.	Montpelier, Vt.	12 Fayerweather

Name	Residence	Room
Webster, Leon Winfield	<i>Barre, Vt.</i>	Δ T Δ House
Whittemore, Wilfred Dolloff	<i>Ashton, R. I.</i>	12 Fayerweather
Wilkinson, Emilio Valenzuela	<i>Oberlin, O.</i>	22 College
Willard, Ira Orlando	<i>Lewiston, Vt.</i>	Lewiston, Vt.
Willis, Edward Simmons	<i>Warner, N. H.</i>	10 Sanborn
Witham, Myron Ellis	<i>Pigeon Cove, Mass.</i>	C. and G. House
Withey, Morton Owen	<i>Meriden, Conn.</i>	44 College St.
Woodbridge, Charles Kingsley	<i>Somerville, Mass.</i>	♣ Δ Θ House
Woods, Carl Fred	<i>W. Brookfield, Mass.</i>	K K K House
Woodward, Guy Eric	<i>Randolph, Vt.</i>	29 Sanborn
Woodward, Henry Elliot	<i>Lexington, Mass.</i>	36 Fayerweather

JUNIORS

Adams, James Seth	<i>Biddeford, Me.</i>	25 S. Main St.
Agry, George Cram	<i>Newton, Mass.</i>	17 Richardson
Archibald, Cecil	<i>Brockton, Mass.</i>	1 Sanborn
Ashley, William H	<i>Fall River, Mass.</i>	5 Richardson
Ashworth, John Edward	<i>Lebanon, N. H.</i>	6 W. Wheelock St.
Atwood, Howard Deloz	<i>New Boston, N. H.</i>	22 Richardson
Balph, Rowland Pollock	<i>Wilkesburg, Penn.</i>	1 Sanborn
Barney, Winfield Supply	<i>Washington, N. H.</i>	8 College St.
Barton, Clarence LeRoy	<i>Marlboro, Mass.</i>	X ♣ House
Batchellor, Stillman	<i>Littleton, N. H.</i>	K K K House
Bedell, Irving Washington	<i>Somersworth, N. H.</i>	B Θ Π House
Billman, Howard Dwight	<i>Dayton, Ohio.</i>	20 Wentworth
Blatner, William Davis	<i>Albany, N. Y.</i>	1 Sanborn
Boyce, Henry Francis	<i>Danversport, Mass.</i>	49 Fayerweather
Brockway, John	<i>West Hartford, Vt.</i>	B Θ Π House
Brown, Dana Francis	<i>Fall River, Mass.</i>	5 Sanborn
Brown, Frederick Howard	<i>West Boylston, Mass.</i>	Δ T Δ House
Brown, Roger Whittemore	<i>Concord, Mass.</i>	2 Richardson
Campbell, Carroll Alfred	<i>So. Hadley Falls, Mass.</i>	3 Bartlett
Campbell, William James	<i>Summerside, P. E. I.</i>	8 Lebanon St.
Card, Elmer Whittier	<i>Dover, N. H.</i>	15 Wentworth
Chamberlain, Frank Theron	<i>Sandy Creek, N. Y.</i>	6 W. Wheelock St.
Chamberlain, William Edward	<i>Medford, Mass.</i>	28 College
Chamberlin, Lafayette Ray	<i>Berlin, N. H.</i>	K K K House
Chase, Frederick	<i>Hanover, N. H.</i>	38 College St.
Chisholm, Everett Allen	<i>Manchester, N. H.</i>	16 Thornton
Clow, Arlington Ingalls	<i>Orange, Mass.</i>	5 College St.
Collins, Ralph Waldo	<i>Kingston, N. H.</i>	9 Fayerweather
Colson, George Ralph	<i>North Billerica, Mass.</i>	8 College St.
Conley, Walter Abbott	<i>Portland, Me.</i>	K K K House
Cornish, Solon Washington	<i>Carver, Mass.</i>	10 Elm

STUDENTS

39

Name	Residence	Room
Cunningham, Shirley Beck	<i>Wellesley Hills, Mass.</i>	4 Reed
Day, Edmund Ezra	<i>Worcester, Mass.</i>	3 Reed
Dennison, Harry Garfield	<i>Somersworth, N. H.</i>	7 Sanborn
Donnelly, James Corcoran	<i>Worcester, Mass.</i>	11 Dartmouth
Dorothy, Wayland Francis	<i>Enfield, N. H.</i>	25 College
Dunlap, John Hoffman	<i>East Concord, N. H.</i>	1 Wentworth
Eichenauer, Charles Frederick	<i>Quincy, Ill.</i>	17 S. Main St.
Ela, Arthur John	<i>Lebanon, N. H.</i>	17 Thornton
Elliott, Herford Naylor	<i>Lowell, Mass.</i>	14 Richardson
Emery, Walter Palmer	<i>Auburn, N. H.</i>	♠ Δ Θ House
English, Frank	<i>Wareham, Mass.</i>	10 Elm
Estes, Charles Edward	<i>Somersworth, N. H.</i>	Δ T Δ House
Falconer, Robert Crawford	<i>Hamilton, O.</i>	27 Richardson
Fall, Gilbert Haven	<i>Somersworth, N. H.</i>	7 Sanborn
Fisher, Stuart Dexter	<i>Woonsocket, R. I.</i>	41 S. Main St.
Fleming, Harris Willard	<i>Natick, Mass.</i>	14 Richardson
French, Robert Allan	<i>Nashua, N. H.</i>	18 Crosby
Fromm, Nelson Kaufman	<i>Albany, N. Y.</i>	3 Dartmouth
Frost, Eliot Park	<i>Rutland, Mass.</i>	17 Wentworth
Furfey, John Hugh	<i>Brookline, Mass.</i>	16 Thornton
Gage, Daniel Nathan	<i>Andover, Mass.</i>	6 Proctor
Gates, Don Shepard	<i>Bakersfield, Vt.</i>	1 Wentworth
Getchell, Carl Folsom	<i>Monmouth, Me.</i>	11 Richardson
Gilbert, Edgar	<i>Lawrence, Mass.</i>	8 Thornton
Gilbert, Oscar Bowen	<i>Woonsocket, R. I.</i>	27 Fayerweather
Goodrich, Charles Francis	<i>Manchester, N. H.</i>	1 Wentworth
Graves, Allen Bouthrod	<i>Lynchburg, Va.</i>	26 Hallgarten
Hale, Fletcher	<i>Dorchester, Mass.</i>	X ♣ House
Harding, Robert Hatch	<i>Newcastle, N. H.</i>	B Θ Π House
Harwood, Fred Eugene	<i>Athol Centre, Mass.</i>	8 Reed
Haskell, Harold Morton	<i>Claremont, N. H.</i>	17 Wentworth
Hatch, Fletcher Ames	<i>Hanover, Mass.</i>	5 Proctor
Hawley, Walter Earl	<i>Norwich, Vt.</i>	17 S. Main St.
Hazen, Edwin Humphrey	<i>Middletown, Conn.</i>	X ♣ House
Hersam, George Alexander	<i>Stoneham, Mass.</i>	33 Fayerweather
Hobart, Henry Morgan	<i>Brooklyn, N. Y.</i>	21 Thornton
Hodgman, Charles David	<i>Milford, N. H.</i>	10 Dartmouth
Holton, Ray Clifford	<i>Chicago, Ill.</i>	18 Crosby
Jeffreys, Arthur Henry	<i>Chelsea, Mass.</i>	5 Elm
Kelley, Carl Hall	<i>Haverhill, Mass.</i>	B Θ Π House
Kelley, Charles Jenkins	<i>Harwichport, Mass.</i>	14 Reed
Kingsbury, Joseph Lyman	<i>Clifton Springs, N. Y.</i>	15 Wentworth
Knibbs, John William, Jr.	<i>Worcester, Mass.</i>	4 Dartmouth
Knight, Howard Vivian	<i>Dorchester, Mass.</i>	2 Proctor
Ladd, Percy Chandler	<i>Greenfield, Mass.</i>	7 Hallgarten
Laing, John Albert	<i>Albany, N. Y.</i>	41 S. Main St.

Name	Residence	Room
Lane, Harold Francis	<i>Chicago, Ill.</i>	X ♣ House
Lill, Harry Alfred	<i>Mt. Hope, Kan.</i>	2 Elm
Lillard, Walter Huston	<i>Chicago, Ill.</i>	38 College St.
Loder, Halsey Beach	<i>Thetford, Vt.</i>	♠ ♠ ♠ House
Luce, Thomas Dunham, Jr.	<i>Nashua, N. H.</i>	K K K House
McCabe, Frank Joseph	<i>Randolph, Mass.</i>	♠ T ♠ House
McClary, Arthur Eugene	<i>Malone, N. Y.</i>	K K K House
McFeeters, William Rensselaer	<i>Enosburg Falls, Vt.</i>	♠ ♠ ♠ House
MacLean, Hugh Whitford	<i>Evanston, Ill.</i>	6 Dartmouth
MacLennan, Edgar Allen	<i>Roxbury, Mass.</i>	1 Dartmouth
MacMillan, Andrew Louis, Jr.	<i>Hanover, Mass.</i>	2 Sanborn
May, Walter Milton	<i>West Concord, Vt.</i>	29 Fayerweather
Maynard, Alexander Rockwood	<i>Nashua, N. H.</i>	19 Crosby
Melvin, Albert Thomas	<i>Derry, N. H.</i>	♠ T ♠ House
Merriam, James Robert	<i>Conneaut, O.</i>	♠ ♠ ♠ House
Messer, Hope Richard	<i>Claremont, N. H.</i>	18 Thornton
Moore, Chester Newell	<i>Worcester, Mass.</i>	4 Reed
Mulally, James Henry	<i>Danversport, Mass.</i>	49 Fayerweather
Murphy, Francis Joseph	<i>Somerville, Mass.</i>	40 S. Main St.
Musgrove, Eugene Richard	<i>Bristol, N. H.</i>	17 S. Main St.
Neely, John Hinsdale	<i>Evanston, Ill.</i>	14 Sanborn
Newdick, Edwin Walter	<i>Arlington, Mass.</i>	19 Sanborn
Norton, Henry Kittredge	<i>Chicago, Ill.</i>	K K K House
Nourse, Walter Lorenzo	<i>Hudson, Mass.</i>	17 S. Main St.
Orcutt, Leslie Warren	<i>Winthrop, Mass.</i>	40 S. Main St.
Parkinson, Royal	<i>Waltham, Mass.</i>	23 Wentworth
Patteson, Griesser Winston	<i>Cleveland, O.</i>	27 Fayerweather
Pelletier, Alexis Desire	<i>Cacouna, P. Q.</i>	43 S. Main St.
Peyser, Harry Wentworth	<i>Portsmouth, N. H.</i>	B ♠ II House
Pierce, Clifford Wellington	<i>Lexington, Mass.</i>	20 Sanborn
Platt, Theodorus Badger	<i>Poultney, Vt.</i>	41 S. Main St.
Post, John Dwight	<i>Torrington, Conn.</i>	♠ ♠ ♠ House
Post, John Ransom	<i>Jacksonville, Ill.</i>	X ♣ House
Preston, Harry Boynton	<i>Henniker, N. H.</i>	14 Sanborn
Putnam, George William	<i>Nashua, N. H.</i>	10 Dartmouth
Reeve, Ralph Walker	<i>Somersworth, N. H.</i>	B ♠ II House
Reid, George Stickie	<i>Newton, Mass.</i>	Bridgman Block
Richardson, Edward Curtis	<i>Dover, N. H.</i>	2 Proctor
Ricker, George Roscoe	<i>Biddeford, Me.</i>	23 N. Main St.
Ripley, John Barrett	<i>Troy, N. H.</i>	47 Fayerweather
Rogers, Walter Mulliken	<i>Quincy, N. H.</i>	3 Bartlett
Root, Frederick James	<i>Chicago, Ill.</i>	20 S. Main St.
Root, Raymond Richmond	<i>Georgetown, Mass.</i>	8 W. South St.
Russell, Verney Warren	<i>Norwich, Vt.</i>	13 Richardson
Sanderson, John Franklin	<i>North Bridgton, Me.</i>	9 Reed
Scales, George Levi	<i>Exeter, N. H.</i>	4 Sargent St.

STUDENTS

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Name	Residence	Room
Sibley, Edward Napoleon	<i>Ashburnham, Mass.</i>	8 Dartmouth
Silha, Emil Albert	<i>Chicago, Ill.</i>	25 S. Main St.
Small, Walter Blaisdell	<i>Chelsea, Mass.</i>	13 Richardson
Small, Walter Garfield	<i>Whitefield, N. H.</i>	13 Wentworth
Smith, Allen Copeland	<i>Lexington, Mass.</i>	20 Sanborn
Smith, Chester Philbrook	<i>Norridgewock, Me.</i>	4 Allen
Smith, Leon Burdett	<i>West Derry, N. H.</i>	18 Thornton
Smith, Roscoe Brinker	<i>Norridgewock, Me.</i>	4 Allen
Stone, Fred	<i>Windsor, Vt.</i>	15 S. Main St.
Stone, James Hammond	<i>Concord, N. H.</i>	9 College St.
Stuart, Irving Wesley	<i>Lunenburg, Vt.</i>	8 Lebanon St.
Studwell, Lester Wellington	<i>Port Chester, N. Y.</i>	5 Richardson
Sylvester, Charles Bradford	<i>Groveland, Mass.</i>	14 Wentworth
Thrall, Henry Dutton	<i>Pepperell, Mass.</i>	♦ Δ Θ House
Tuck, John	<i>Biddeford, Me.</i>	17 Richardson
Uniac, Thomas Vincent	<i>Randolph, Mass.</i>	8 College
Vaughan, James Albert	<i>Portland, Me.</i>	Bridgman Block
Wallis, Louis Theodore	<i>Jamaica Plain, Mass.</i>	2 Sanborn
Ward, Harold Edward	<i>Kennebunk, Me.</i>	5 Fayerweather
Watson, Harry Lyman	<i>Manchester, N. H.</i>	3 Reed
Weston, Frederick Sampson	<i>Middleboro, Mass.</i>	19 Hallgarten
White, Ernest Miller	<i>Portland, Me.</i>	12 S. Main St.
Whittier, John Boland	<i>Portland, Me.</i>	10 W. South St.
Wilkins, Samuel Henry, Jr.	<i>Somerville, Mass.</i>	19 Sanborn
Williams, Walter Longworth	<i>Brooklyn, N. Y.</i>	Bridgman Block
Wilmot, Ross Hibbard	<i>Littleton, N. H.</i>	23 Wentworth
Wiswall, Thomas Augustus	<i>Reading, Mass.</i>	22 Sanborn

SOPHOMORES

Adrianse, Robert Irving	<i>Winchester, Mass.</i>	10 Reed
Alley, George Augustus	<i>Windham, N. H.</i>	20 1-2 N. Main St.
Alling, Marshall Louis	<i>Kensington, Conn.</i>	Davison Block
Ayers, Augustine Haines	<i>Concord, N. H.</i>	6 Richardson
Bailey, Dearborn	<i>Dedham, Mass.</i>	B Θ Π House
Bankart, George Norman	<i>Bridgton, Me.</i>	4 Sanborn
Barker, Thomas	<i>Chicago, Ill.</i>	Δ T Δ House
Beale, Luther Magoun	<i>Moosup, Conn.</i>	24 N. Main St.
Bell, William Thomas	<i>Newmarket, N. H.</i>	23 Thornton
Besse, Stanley	<i>Newburyport, Mass.</i>	Davison Block
Bishop, Crawford Morrison	<i>Baltimore, Md.</i>	28 Richardson
Blatherwick, James Albert	<i>Denver, Colo.</i>	12 S. Main St.
Blood, Robert McCutchins	<i>Charlestown, Mass.</i>	B Θ Π House
Bodwell, William Mottimer	<i>Solon, Me.</i>	10 W. South St.
Bourne, Charles Luther	<i>Auburndale, Mass.</i>	9 Wentworth

Name	Residence	Room
Boynton, George William	<i>Hillsboro Bridge, N. H.</i>	7 Wentworth
Boynton, Herbert Leslie	<i>Haverhill, Mass.</i>	10 Thornton
Brackett, Colborn Barrell	<i>Greenland, N. H.</i>	2 Fayerweather
Brock, Maynor Davis	<i>North Conway, N. H.</i>	24 Thornton
Brooks, Addison Gott	<i>Gloucester, Mass.</i>	X ♦ House
Brooks, Charles Adams	<i>Claremont, N. H.</i>	21 Thornton
Brown, Homer Francis	<i>Saco, Me.</i>	17 Thornton
Brown, Thurnnond	<i>Chicago, Ill.</i>	12 N. Main St.
Brown, William Hyde	<i>Cleveland, O.</i>	8 Elm
Buckbee, Neil Stanley	<i>French Mountain, N. Y.</i>	12 Lebanon St.
Burnie, Arthur Newell	<i>Biddeford, Me.</i>	15 Richardson
Burtch, John Jay	<i>Chicago, Ill.</i>	24 Sanborn
Butterfield, Ray Evan	<i>Perkinsville, Vt.</i>	40 S. Main St.
Call, Frederick Arthur	<i>Clinton, Mass.</i>	41 S. Main St.
Carpenter, Robert Franklin	<i>Cleveland, O.</i>	37 Fayerweather
Carr, Daniel	<i>North Haverhill, N. H.</i>	21 Wentworth
Chapin, Arthur Wood	<i>Boston, Mass.</i>	39 Fayerweather
Chase, Joseph Theodore	<i>Holyoke, Mass.</i>	6 Crosby
Chellis, Converse Alvah	<i>Meriden, N. H.</i>	40 S. Main St.
Cheney, Henry Howard	<i>Newtonville, Mass.</i>	3 Richardson
Chidley, Howard James	<i>Cresswell, Ontario</i>	19 Thornton
Childs, Francis Lane	<i>Henniker, N. H.</i>	11 Reed
Clark, Edward Everett	<i>Pittsfield, N. H.</i>	15 S. Main St.
Clough, William Plummer	<i>New London, N. H.</i>	10 W. South St.
Coburn, Harry Warner, Jr.	<i>Lowell, Mass.</i>	A ♦ House
Cochran, Albert Clarendon	<i>Andover, N. H.</i>	50 Fayerweather
Cogswell, Eliot Sanborn	<i>Stratford, Conn.</i>	10 Wentworth
Connell, Thomas Michael	<i>East Weymouth, Mass.</i>	2 Wentworth
Cooke, Randall Bradford	<i>East Whitman, Mass.</i>	3 Fayerweather
Cragin, Arthur Mantor	<i>Kingston, N. Y.</i>	11 Reed
Crane, Charles Edward	<i>Ludlow, Vt.</i>	Bridgman Block
Cromwell, John Wesley, Jr.	<i>Washington, D. C.</i>	5 Elm
Cummings, Herbert Wiley	<i>Baldwinsville, Mass.</i>	13 E. Wheelock St.
Cushing, Joseph	<i>Lakeport, N. H.</i>	42 Fayerweather
Cushing, Stephen Salisbury	<i>Lakeport, N. H.</i>	42 Fayerweather
Davis, Howard Clark	<i>Westerly, R. I.</i>	18 Sanborn
Denison, Roy Erskine	<i>Pittsfield, N. H.</i>	15 S. Main St.
DeNyse, Percy Lott	<i>Brooklyn, N. Y.</i>	10 Richardson
Dillon, Walter Sidney	<i>Fitchburg, Mass.</i>	24 College
Dondero, Charles Anthony	<i>Portsmouth, N. H.</i>	11 Dartmouth
Downey, John Eustis	<i>Newtonville, Mass.</i>	2 College
Dunn, Hubert Randall	<i>Woonsocket, R. I.</i>	10 W. South St.
Dwyer, Louis Richard	<i>Bradford, Mass.</i>	Davison Block
Eastman, Frank Herman	<i>Fort Ann, N. Y.</i>	7b Thornton
Erickson, Percy Elwood	<i>Kearny, N. J.</i>	24 Wentworth
Evans, Robie Mason	<i>Fryeburg, Me.</i>	20 Fayerweather

Name	Residence	Room
Everett, Chester McKenzie	<i>Champlain, N. Y.</i>	5 Reed
Farrington, Jeremiah Arthur	<i>Portsmouth, N. H.</i>	5 Crosby
Felt, Paul Revere	<i>Hillsboro Bridge, N. H.</i>	7 Wentworth
Fish, Harold Dufur	<i>South Royalton, Vt.</i>	25 Sanborn
Fitts, Ralph Corydon	<i>Manchester, N. H.</i>	3 Crosby
Flanagan, Joseph Anthony	<i>Charlestown, Mass.</i>	15 E. Wheelock St.
Ford, Trall Edward	<i>Chicago, Ill.</i>	10 Crosby
Fox, William Henry	<i>Clinton, Mass.</i>	1 Fayerweather
Frazier, Lyman Barney	<i>Lynn, Mass.</i>	X ♣ House
French, Charles Ward	<i>Roxbury, Mass.</i>	15 E. Wheelock St.
French, Edward Sanborn	<i>Somerville, Mass.</i>	14 Crosby
French, Ferdinand	<i>Pittsfield, N. H.</i>	8 Dartmouth
Gage, Jesse Witherspoon	<i>Manchester, N. H.</i>	B ⊕ Π House
Gardiner, William Henry, Jr.	<i>Chicago, Ill.</i>	24 Sanborn
Gerould, Leonard Stinson	<i>Hollis, N. H.</i>	35 College St.
Gibb, Oscar Edward	<i>Barton Landing, Vt.</i>	34 N. Main St.
Gilman, John Taylor	<i>Exeter, N. H.</i>	6 Proctor
Glaze, Ralph	<i>Boulder, Colo.</i>	7 Richardson
Gleason, William Fogarty	<i>Norwich, Conn.</i>	Davison Block
Goodwin, Reuben Albert	<i>Westville, Vt.</i>	22 College
Gordon, Thurlow Marshall	<i>Methuen, Mass.</i>	Observatory
Gray, Clarence Tebbets	<i>Newport, Vt.</i>	23 S. Main St.
Griffin, James Thomas, Jr.	<i>So. Hadley Falls, Mass.</i>	Benton Place
Grover, Chester Abbott	<i>Nahant, Mass.</i>	19 Wentworth
Grover, Louis Clayton	<i>Dana, Mass.</i>	Bridgman Block
Guyer, Foster Erwin	<i>Hyannis, Mass.</i>	4 College St.
Hagberg, Paul Tobias	<i>Worcester, Mass.</i>	7 Hallgarten
Hale, Glenn Joel	<i>Windsor, Vt.</i>	Bridgman Block
Hartmann, Max	<i>Dorchester, Mass.</i>	1 Elm
Harvey, James Frederick	<i>Rock, Mass.</i>	15 S. Main St.
Haslam, John William	<i>Providence, R. I.</i>	9 Dartmouth
Hastings, Thomas Nelson, Jr.	<i>Walpole, N. H.</i>	4 Crosby
Hatch, Daniel Phillips	<i>Everett, Mass.</i>	1 Thornton
Hazen, Conrad Philip	<i>Norwich, Vt.</i>	Norwich, Vt.
Herr, Edward Albert	<i>Waterbury, Conn.</i>	B ⊕ Π House
Higman, Harry Wentworth	<i>Chicago, Ill.</i>	8 Sanborn
Hills, Clarence Clare	<i>Columbus, O.</i>	Bridgman Block
Holmes, Arthur Dunham	<i>Walpole, N. H.</i>	21 Wentworth
Holmes, Percival Jerauld	<i>Somerville, Mass.</i>	22 Crosby
Howard, Charles Sumner	<i>Oskaloosa, Ia.</i>	♠ ⊕ House
Howe, Willis Dearborn	<i>Woodsville, N. H.</i>	8 Wentworth
Hutchinson, Jonas, Jr.	<i>Chicago, Ill.</i>	8 Proctor
Jackson, Harry Bingham	<i>Littleton, N. H.</i>	41 S. Main St.
Jones, Fred Andros	<i>Nashua, N. H.</i>	X ♣ House
Keady, John Thomas	<i>Wakefield, Mass.</i>	5 Proctor
Kelley, Arthur Olin	<i>Franklin Falls, N. H.</i>	34 Fayerweather

Name	Residence	Room
Kelley, Eric Philbrook	<i>Amesbury, Mass.</i>	13 Thornton
Kelley, Frank Howard	<i>Roxbury, Mass.</i>	11 Fayerweather
Kendall, Henry Sibley	<i>LaGrange, Ill.</i>	A Δ Φ House
Ketcham, Henry Chapin	<i>Indianapolis, Ind.</i>	12 Sanborn
Kingsbury, John Howard	<i>Albany, N. Y.</i>	6 Elm
Kraft, Charles Herbert	<i>Brooklyn, N. Y.</i>	16 Sanborn
Ladd, Henry Benjamin	<i>North Belfast, Me.</i>	23 N. Main St.
Lambe, Roland	<i>Boston, Mass.</i>	28 Hallgarten
Laton, George Peavey	<i>Nashua, N. H.</i>	3 Crosby
Libby, Arthur Frederick	<i>Putnam, Conn.</i>	X Φ House
Locke, William Maynard	<i>Winchendon, Mass.</i>	13 E. Wheelock St.
Loff, George	<i>Worcester, Mass.</i>	1 Richardson
Lyford, Henry Mellish	<i>Kingston, N. H.</i>	15 S. Main St.
Macullar, Harvey Sumner	<i>Cambridge, Mass.</i>	12 College
McGrail, William Phipps	<i>Worcester, Mass.</i>	1 Richardson
McGrath, Ray Percy	<i>Lisbon, N. H.</i>	12 Thornton
McIntire, Donald Cahoon	<i>Littleton, N. H.</i>	11 Crosby
McMore, Harry Allen	<i>Fort Ann, N. Y.</i>	7b Thornton
Main, Charles Reed	<i>Winchester, Mass.</i>	10 Reed
Main, David John	<i>Denver, Colo.</i>	12 S. Main St.
Marden, Edgar Avery	<i>Stoughton, Mass.</i>	10 Wentworth
Marshall, John Knox	<i>Brookline, Mass.</i>	12 Richardson
Martin, Leigh Shepard	<i>Rockford, Ill.</i>	16 Sanborn
Mathes, Benjamin William	<i>Newmarket, N. H.</i>	B Θ Π House
Merrill, Joseph Henry	<i>Danvers, Mass.</i>	25 S. Main St.
Meservey, Arthur Bond	<i>Ashland, N. H.</i>	2 Bartlett
Milham, Charles Gilbert	<i>Brooklyn, N. Y.</i>	6 Crosby
Montgomery, Wilder Percival	<i>Washington, D. C.</i>	10 Fayerweather
Moore, William Herbert	<i>Peterboro, N. H.</i>	12 Wentworth
Morse, Frank Thomas	<i>Orange, Mass.</i>	5 College St.
Neal, Erlon Hugh	<i>Rochester, N. H.</i>	4 Sanborn
Oakford, Edward Lines	<i>Peoria, Ill.</i>	Δ Δ Θ House
O'Brien, Michael Stephen	<i>Lawrence, Mass.</i>	16 Wentworth
Owen, Roy Mansfield	<i>Chicago, Ill.</i>	50 Fayerweather
Page, William Ray	<i>Shiloh, O.</i>	9 Wentworth
Parker, Charles Stevens	<i>West Newton, Mass.</i>	16 College
Parker, Fred Foster	<i>West Swansey, N. H.</i>	1 Crosby
Patten, Harold Taylor	<i>Bernardston, Mass.</i>	12 Wentworth
Paul, Philip Batcheller	<i>Boston, Mass.</i>	20 Crosby
Peirce, Joshua Winslow	<i>Portsmouth, N. H.</i>	30 Richardson
Perry, Clifford Omera	<i>Danvers, Mass.</i>	2 Sanborn
Perry Henry Chester	<i>Middleboro, Mass.</i>	Bridgman Block
Pierce, Charles Alfred	<i>Suffield, Conn.</i>	31 Fayerweather
Powers, Walter	<i>Hyde Park, Mass.</i>	Bridgman Block
Pratt, Elon Graham	<i>Brooklyn, N. Y.</i>	23 S. Main St.
Priest, Frederick Franklin	<i>Holyoke, Mass.</i>	6 W. Wheelock St.

Name	Residence	Room
Proctor, George Newton, Jr.	<i>Fitchburg, Mass.</i>	30 Richardson
Rainie, Herbert Williamson	<i>Concord, N. H.</i>	9 Dartmouth
Ransom, Daniel Parke	<i>Milford, Conn.</i>	36 N. Main St.
Redlon, Nathan Carroll	<i>Portland, Me.</i>	44 Fayerweather
Redman, Edward Blanchard	<i>Chelmsford, Mass.</i>	5 Wentworth
Richardson, Robert Wallace	<i>Lisbon, N. H.</i>	12 Thornton
Ritchie, James John	<i>West Barnet, Vt.</i>	43 Fayerweather
Rix, John Burton	<i>Utica, N. Y.</i>	2 Proctor
Rugg, Harold Goddard	<i>Proctorsville, Vt.</i>	1 Wentworth
Russ, Charles Alonzo	<i>Somerville, Mass.</i>	14 Crosby
Russell, Louis Webster	<i>Plymouth, N. H.</i>	2 College
Russell, Norman	<i>Newburyport, Mass.</i>	31 Fayerweather
Sayres, Homer Stuart	<i>Detroit, Mich.</i>	10 Hallgarten
Scott, Ralph Wentworth	<i>Newton Centre, Mass.</i>	3 Richardson
Scribner, Frederick Parker	<i>Raymond, N. H.</i>	23 Thornton
Seager, George James	<i>Milo Centre, N. Y.</i>	The Hanover Inn
Shepard, Charles Francis	<i>Somerville, Mass.</i>	17 S. Main St.
Sickman, Guy Leonard	<i>Holyoke, Mass.</i>	B & Π House
Slack, John Phelps	<i>Bethel, Conn.</i>	26 Fayerweather
Sleeper, Finlay Page	<i>North Haverhill, N. H.</i>	15 Richardson
Smead, Ralph Amsden	<i>Greenfield, Mass.</i>	20 College
Smith, Cary Fred	<i>Cabot, Vt.</i>	43 Fayerweather
Smith, Eugene Greeley	<i>South Acton, Mass.</i>	21 Sanborn
Smith, Ephraim John	<i>Newport, Vt.</i>	Davison Block
Smith, Harold Earle	<i>Athol, Mass.</i>	8 Reed
Smith, Howard Ernest	<i>Newburyport, Mass.</i>	8 W. South St.
Smith, Joseph Thomas	<i>East Weymouth, Mass.</i>	6 Fayerweather
Smith, Pierre Journeay	<i>Upper Montclair, N. J.</i>	6 Richardson
Smith, Watson Burchard	<i>Omaha, Neb.</i>	1 Crosby
Souter, Clyde Douglas	<i>Kearny, N. J.</i>	24 Wentworth
Southworth, Chester Dean	<i>Somerville, Mass.</i>	K K K House
Spencer, Bertrand Edwin	<i>Wilder, Vt.</i>	24 Wentworth
Stanton, Harold Bacon	<i>Newton, Mass.</i>	20 Fayerweather
St. Clair, Earle Jason	<i>Plymouth, N. H.</i>	51 Fayerweather
Stephens, William A	<i>Albany, N. Y.</i>	41 S. Main St.
Swasey, George Leroy	<i>Concord, N. H.</i>	18 Sanborn
Tarr, Alphonso Remby	<i>Magnolia, Mass.</i>	4 Fayerweather
Terrien, George Dominick	<i>Nashua, N. H.</i>	8 W. South St.
Thomas, David	<i>Neath, Penn.</i>	8 Thornton
Thompson, Ernest Alvin	<i>Cambridge, Mass.</i>	4 Crosby
Thompson, Ralph Joseph	<i>Hyde Park, Mass.</i>	7 Elm
Tourtellott, Clarence William	<i>Danvers, Mass.</i>	Davison Block
Varick, Remsen	<i>Manchester, N. H.</i>	13 W. Wheelock St.
Vilas, Maynard	<i>New York, N. Y.</i>	10 W. South St.
Wallace, Robert Burns	<i>Milford, N. H.</i>	10 Crosby
Wardwell, Robert Blaney, Jr.	<i>Swampscott, Mass.</i>	16 Fayerweather

Name	Residence	Room
Waring, Dwight Stowe	<i>Fall River, Mass.</i>	22 Crosby
Wayman, Harry Parcell	<i>Chicago, Ill.</i>	12 Sanborn
Webster, Merton Wells	<i>Berlin, Conn.</i>	Δ T Δ House
Welch, Frederick William	<i>East Lempster, N. H.</i>	1 Bartlett
Wells, Arthur Sethus	<i>Middlesex, Vt.</i>	1 Elm
White, Joseph John	<i>East Weymouth, Mass.</i>	Bridgman Block
White, Warner Goodrich	<i>Buffalo, N. Y.</i>	34 Fayerweather
Whittemore, Harvey Foss	<i>Framingham, Mass.</i>	6 Elm
Winship, Harold Carter	<i>Reading, Mass.</i>	44 Fayerweather
Wolf, Ninian Livingston	<i>Denver, Colo.</i>	11 Richardson
Wood, Bourne	<i>Middleboro, Mass.</i>	25 S. Main St.
Wood, Harlan Whitaker	<i>Norwich, Vt.</i>	17 S. Main St.
Wood, Raymond Collins	<i>Haverhill, Mass.</i>	X Φ House
Wood, Robert William	<i>Columbia, Tenn.</i>	28 S. Main St.
Wright, Robert Garfield	<i>Wollaston, Mass.</i>	1 Thornton

FRESHMEN

Abbott, Robert Howard	<i>Randolph, Vt.</i>	9 College St.
Adams, Ellery Daniel	<i>Calais, Me.</i>	1 Reed
Ahern, William Joseph, Jr.	<i>Concord, N. H.</i>	4 Wentworth
Andrews, Walter Raymond	<i>Newton Centre, Mass.</i>	8 Richardson
Ashley, Edward Lester	<i>So. Royalton, Vt.</i>	4 Wentworth
Averill, Hiram Harrison	<i>Barre, Vt.</i>	9 College St.
Baldwin, Fred Harold	<i>Somerville, Mass.</i>	17 S. Main St.
Barker, Edward Bell	<i>Pittsfield, N. H.</i>	12 Occom Ridge
Barnes, Samuel Lawrence	<i>Danvers, Mass.</i>	13 Fayerweather
Barry, Frederick William	<i>Chelsea, Mass.</i>	26 Richardson
Bartlett, James Agard	<i>Rockford, Ill.</i>	27 Hallgarten
Bartlett, Samuel Colcord	<i>Hanover, N. H.</i>	8 W. Wheelock St.
Beetle, Ralph Dennison	<i>New Bedford, Mass.</i>	17 Hallgarten
Berry, Lester Stiles	<i>St. Johnsbury Centre, Vt.</i>	32 Fayerweather
Billings, Warren Chesbrough	<i>Milford, N. H.</i>	19 Allen St.
Black, Dennis Leo	<i>Nashua, N. H.</i>	8 W. South St.
Blaisdell, John Harper	<i>Winchester, Mass.</i>	9 College St.
Blake, Henry Cleveland	<i>East Fairfield, Me.</i>	23 N. Main St.
Blythe, Harry Randolph	<i>Aurora, Ill.</i>	14 Hallgarten
Boardman, Joseph, Jr.	<i>Roxbury, Vt.</i>	3 Thornton
Boothby, Marsh Bowden	<i>St. Louis, Mo.</i>	21 Hallgarten
Bourne, Arthur Israel	<i>Pembroke, N. H.</i>	34 N. Main St.
Boyer, Francis Burleigh	<i>Somersworth, N. H.</i>	15 Sanborn
Braun, Gustav Feige	<i>Everett, Mass.</i>	1 Thornton
Brock, Timothy Wolcott	<i>North Conway, N. H.</i>	24 Thornton
Brooks, Eugene Childs	<i>Cambridge, Mass.</i>	6 Sanborn
Brown, Allan	<i>Concord, Mass.</i>	2 Richardson
Brown, James Barrett	<i>Everett, Mass.</i>	18 College

Name	Residence	Room
Brown, Ray Wilbur	<i>Fall River, Mass.</i>	5 Sanborn
Bruce, Harry Duane	<i>Moretown, Vt.</i>	2 Sargent St.
Burns, James Alexander	<i>Lancaster, Mass.</i>	15 Hallgarten
Burton, John Carlton	<i>Aurora, Ill.</i>	26 Richardson
Chase, Philip Hartly	<i>Hanover, N. H.</i>	38 College St.
Churchill, Lawrence Whitfield	<i>Everett, Mass.</i>	40 S. Main St.
Churchill, Perley Walter	<i>Berlin, N. H.</i>	11 Hallgarten
Churchill, Wendall Herman	<i>Berlin, N. H.</i>	11 Hallgarten
Clark, Allan Chester	<i>Meredith, N. H.</i>	4 School St.
Clark, Ned Renfrew	<i>Kansas City, Mo.</i>	37 Fayerweather
Clough, Walter Hayden	<i>Lawrence, Mass.</i>	20 Thornton
Coburn, Joseph Marshall	<i>Sunapee, N. H.</i>	25 N. Main St.
Cochrane, Robert Carlyle	<i>Somerville, Mass.</i>	48 Fayerweather
Colby, Will Guy	<i>Franklin, N. H.</i>	12 Elm
Cooke, Henry Elentheros, Jr.	<i>East Whitman, Mass.</i>	13 W. Wheelock St.
Coombs, Norman Charles	<i>Oak Park, Ill.</i>	18 Fayerweather
Cotter, Michael Augustine	<i>Roxbury, Mass.</i>	3 College
Crocker, John Franklin, Jr.	<i>Cambridge, Mass.</i>	6 Sanborn
Cummings, Willard Howe	<i>Meredith, N. H.</i>	14 Thornton
Cunningham, Richard Beck	<i>Wellesley Hills, Mass.</i>	2 Reed
Currier, Leon Levy	<i>Sunapee, N. H.</i>	25 N. Main St.
Cushman, Norman Locke	<i>Arlington, Mass.</i>	53 Fayerweather
Cutts, Elwin Fisher	<i>Milford, N. H.</i>	2 Thornton
Dalrymple, George Emerson	<i>Haverhill, Mass.</i>	7 College
Dana, Edward Swan	<i>Woodstock, Vt.</i>	29 Richardson
Davis, Nathaniel Francis	<i>Davisville, N. H.</i>	6 W. South St.
Davis, Orlando Chester	<i>Lowell, Mass.</i>	15 Thornton
Dodge, Amos	<i>Concord, N. H.</i>	8 Fayerweather
Dudley, Guy Earle	<i>Waterford, Me.</i>	3 Sanborn
Dunn, Charles Wesley	<i>Woonsocket, R. I.</i>	10 W. South St.
Dutton, Julius Mason	<i>Portsmouth, N. H.</i>	54 Fayerweather
Eames, Alden Noyes	<i>Wilmington, Mass.</i>	3 College St.
Early, Philip Austin	<i>Newton Lower Falls, Mass.</i>	2 Crosby
Edwards, Frederic	<i>New Bedford, Mass.</i>	6 Sargent St.
Evans, Arthur William	<i>Revere, Mass.</i>	13 Elm
Evans, Percival Bolles	<i>Wakefield, Mass.</i>	45 Fayerweather
Farrier, Albert Moses	<i>Brooklyn, N. Y.</i>	23 S. Main St.
Fassett, Charles Adams	<i>Nashua, N. H.</i>	17 Crosby
Field, Thomas Sullivan	<i>Nashua, N. H.</i>	17 Crosby
Fields, Charles Weeks	<i>Bristol, N. H.</i>	2 Bartlett
Filiu, Clarence George	<i>Hanover, N. H.</i>	30 Lebanon St.
Fine, George Bruce	<i>Kearny, N. J.</i>	24 Wentworth
Fisher, Louis Edwin	<i>Burlington, Vt.</i>	23 N. Main St.
Foley, William Thomas	<i>Bartlett, N. H.</i>	3 Sanborn
Forbes, David Purdon	<i>Boston, Mass.</i>	23 Fayerweather
Foster, Fred Emerson	<i>Concord, N. H.</i>	21 Crosby

Name	Residence	Room
Fowler, Earle Bloodgood	<i>Oak Park, Ill.</i>	38 Fayerweather
Frost, Ernest Howard	<i>Brockton, Mass.</i>	6 College St.
Gallagher, Morrill Allen	<i>Roxbury, Mass.</i>	7 Richardson
Garby, William Frank	<i>Walpole, Mass.</i>	28 Fayerweather
Garvin, Samuel Francis	<i>Sanbornville, N. H.</i>	25 N. Main St.
George, Sidney Howard	<i>Groveland, Mass.</i>	15 Reed
Gerry, Louis Cardell	<i>Hyde Park, Mass.</i>	23 Sanborn
Glattfeld, John William Edward	<i>Quincy, Ill.</i>	14 Hallgarten
Goode, Richard Henry	<i>Somerville, Mass.</i>	19 College
Grant, James Moseley	<i>Denver, Colo.</i>	1 Sargent St.
Gray, Harry Matt	<i>Chicopee Falls, Mass.</i>	17 S. Main St.
Grebenstein, George Warren	<i>Cambridge, Mass.</i>	15 Sanborn
Greenleaf, Fred Bacon	<i>Auburn, Me.</i>	16 Richardson
Griffin, Michael Bernard	<i>Newmarket, N. H.</i>	5 Hallgarten
Grimes, William Augustus	<i>Boston, Mass.</i>	10 W. South St.
Hackney, Raymond	<i>Chicago, Ill.</i>	10 W. South St.
Hale, Samuel, Jr.	<i>Dover, N. H.</i>	7 Fayerweather
Haley, Henry Thomas	<i>Roslindale, Mass.</i>	9 College
Hall, Jere Shannon	<i>Bath, Me.</i>	Bridgman Block
Hammond, Dana King	<i>Berwick, Me.</i>	12 Reed
Hammond, John Wilkes, Jr.	<i>Cambridge, Mass.</i>	25 N. Main St.
Hanson, Fred Ernest	<i>Springvale, Me.</i>	26 Fayerweather
Harris, Edwin Rollins	<i>Haverhill, Mass.</i>	8 Crosby
Harris, Julian Chapin	<i>Northfield, Mass.</i>	6 College
Hart, John Shelley	<i>Racine, Wis.</i>	21 Fayerweather
Hatch, Samuel Frink	<i>Greenland, N. H.</i>	35 Fayerweather
Hatfield, Henry John	<i>Boston, Mass.</i>	20 Wentworth
Hathaway, Charles Henry	<i>Malden, Mass.</i>	22 Fayerweather
Hayes, Reuben	<i>Dover, N. H.</i>	7 Fayerweather
* Hayes, Ralph Albert	<i>Rochester, N. H.</i>	6 College
Hazen, Albert Rockwell	<i>White River Junction, Vt.</i>	28 Fayerweather
Hazen, Freeman Brackett	<i>Manchester, N. H.</i>	12 Dartmouth
Hazen, Richard	<i>Wilder, Vt.</i>	23 N. Main St.
Heneage, Harry Robert	<i>Oak Park, Ill.</i>	18 Fayerweather
Herman, Raymond Elmer	<i>Chicago, Ill.</i>	20 Crosby
Herrick, Ralph Crosby	<i>Winchester, Mass.</i>	48 Fayerweather
Hiestand, Dwight Willard	<i>Chicago, Ill.</i>	43 S. Main St.
Hill, Herman Henry	<i>Chelmsford, Mass.</i>	5 Wentworth
Hinman, Herbert Davis	<i>Groveton, N. H.</i>	32 Fayerweather
Holden, Carroll Charles	<i>Proctor, Vt.</i>	8 Hallgarten
Holman, Leon Madison	<i>Baldwinsville, Mass.</i>	1 S. Park St.
Hooper, Henry Judson	<i>Exeter, N. H.</i>	8 Crosby
Houghton, Donald Marcellus	<i>Newton Centre, Mass.</i>	4 Thornton
Howard, George Henry	<i>Craftsbury, Vt.</i>	54 Fayerweather
Howard, Henry Dwight, Jr.	<i>Ludlow, Vt.</i>	9 College St.
Howard, McKay Sylvander	<i>West Lebanon, N. H.</i>	3 College St.

* Deceased.

STUDENTS

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Name	Residence	Room
Hoyt, Archibald Ray	<i>Littleton, N. H.</i>	5 College St.
Hoyt, George Herbert	<i>Hyde Park, Mass.</i>	23 Sanborn
Hunt, Richard Field	<i>Newtonville, Mass.</i>	23 Fayerweather
Hussey, George Richard	<i>Salem, Mass.</i>	1 Fayerweather
Jennings, Harold Delmont	<i>Fairfield, Me.</i>	23 N. Main St.
Jennings, William	<i>Somerville, Mass.</i>	14 Fayerweather
Jewett, John Vernon	<i>Hathorne, Mass.</i>	13 Fayerweather
Jordan, John Harold	<i>Brighton, Mass.</i>	30 Fayerweather
Just, Ernest Everett	<i>Charleston, S. C.</i>	17 S. Main St.
Keenan, John	<i>Granville, N. Y.</i>	1 Sargent St.
Kelley, Charles Aloysius, Jr.	<i>Roxbury, Mass.</i>	10 W. South St.
Kelley, Harry George	<i>Omaha, Neb.</i>	6 Reed
Kennedy, Walter Gardner	<i>Harwichport, Mass.</i>	14 Reed
Kenyon, Robert Dexter	<i>Dorchester, Mass.</i>	22 Thornton
Kibling, Alfred Lorenzo	<i>West Lebanon, N. H.</i>	5 College St.
Kimball, William Rice	<i>Oak Park, Ill.</i>	25 Fayerweather
King, Victor Louis	<i>Rutherford, N. J.</i>	4 Elm
Kingsley, Ralph Hutchings	<i>Bar Harbor, Me.</i>	10 W. South St.
Kitching, Albert Harper	<i>Melrose, Mass.</i>	7 Elm
Knapp, Merton Clark	<i>Keene, N. H.</i>	5 W. South St.
Knight, Nathaniel Hobbs	<i>No. Berwick, Me.</i>	9 Thornton
Knight, Philip Tilton	<i>West Newton, Mass.</i>	2 Crosby
Knight, Ralph Gardner	<i>Randolph, Mass.</i>	8 College St.
Lane, Henry Richardson	<i>Chicago, Ill.</i>	44 College St.
Lane, Robert Raymond	<i>Westbrook, Me.</i>	9 Crosby
Langill, Morton Howard	<i>Hanover, N. H.</i>	21 Allen St.
Langley, Clarence Erwin	<i>Wolfboro, N. H.</i>	5 W. South St.
Lavin, Roy Everett	<i>Berlin, N. H.</i>	33 Fayerweather
Leavitt, Arthur Howland	<i>Spencer, Mass.</i>	7a Thornton
Leighton, Walter Martin	<i>Haverhill, Mass.</i>	10 Thornton
Lena, Fred Thomas	<i>Lawrence, Mass.</i>	16 Wentworth
Leonard, Edward Henry	<i>Boston, Mass.</i>	2 Sargent St.
Lewis, Robert Park Morrison	<i>Lawrence, Mass.</i>	4 School St.
Lindsay, Henry Thomas	<i>Fox Lake, Wis.</i>	Bridgman Block
Liscomb, George Edward	<i>Somerville, Mass.</i>	16 Crosby
Lunt, Joseph Richard	<i>Groveland, Mass.</i>	14 Wentworth
McCann, Joseph Patrick	<i>Chelsea, Mass.</i>	15 Fayerweather
McCoy, Wallis Angus	<i>Somerville, Mass.</i>	19 College
McDavitt, John Frank	<i>Pompton Lakes, N. J.</i>	29 Richardson
McDevitt, Harry Sullivan	<i>Allston, Mass.</i>	30 Fayerweather
MacDonald, Jerome Ambrose	<i>Boston, Mass.</i>	18 College
McDonough, Frank, Jr.	<i>Denver, Colo.</i>	18 Hallgarten
McKearin, James Patrick	<i>Proctor, Vt.</i>	8 Hallgarten
McKendree, Charles Alphonso	<i>Manchester, N. H.</i>	17 Lebanon St.
McLane, John Roy	<i>Milford, N. H.</i>	21 Crosby
Mahoney, Joseph Courtney	<i>Millers Falls, Mass.</i>	11 Wentworth

Name	Residence	Room
Mann, Harley Elmer	<i>Woodsville, N. H.</i>	6 W. Wheelock St.
Martin, Arthur Coe	<i>Pittsburg, Penn.</i>	25 Richardson
Maxfield, Claude Bentley	<i>Mt. Sunapee, N. H.</i>	5 College St.
Mayer, Otto Samuel	<i>New York, N. Y.</i>	18 Richardson
Merrill, Guy Rindge	<i>Cambridge, Mass.</i>	8 Sanborn
Minsch, William Joseph	<i>Worcester, Mass.</i>	5 Dartmouth
Mitchell, Herbert Hamilton	<i>LaGrange, Ill.</i>	15 Crosby
Moses, Kirke Lewis	<i>Lawrence, Mass.</i>	4 School St.
Mullins, Roy	<i>Baldwinsville, Mass.</i>	1 S. Park St.
Mulvanity, John Joseph	<i>Nashua, N. H.</i>	7 Pleasant St.
Newton, Carl Albert	<i>Beverly, Mass.</i>	22 Fayerweather
Nickerson, Albion Ross	<i>Swanville, Me.</i>	41 S. Main St.
Niles, Harold Louville	<i>Somerville, Mass.</i>	14 Fayerweather
Norris, Clifford Eaton	<i>Riverside, R. I.</i>	4 Occom Ridge
O'Connor, Joseph Augustine	<i>Lawrence, Mass.</i>	20 Thornton
Oliphant, Harold Duncan	<i>Methuen, Mass.</i>	4 Bartlett
O'Neill, James Milton	<i>Canandaigua, N. Y.</i>	34 N. Main St.
Ordway, Fred Dickey	<i>Milford, N. H.</i>	19 Allen St.
Paris, Urias George	<i>Sandy Hill, N. Y.</i>	16 Richardson
Parker, Harold	<i>Portsmouth, N. H.</i>	19 Fayerweather
Parkhurst, Wilder Lewis	<i>Winchester, Mass.</i>	7 Reed
Paton, Leon Bruce	<i>Danvers, Mass.</i>	Davison Block
Pearson, Robert Houghton	<i>Concord, N. H.</i>	23 N. Main St.
Peck, Russell Hastings	<i>Mt. Vernon, N. H.</i>	2 Thornton
Pelren, Harry Joseph	<i>Concord, N. H.</i>	13 Crosby
Perkins, Ralph LeRoy	<i>Milford, N. H.</i>	5 Dartmouth
Perkins, Ralph Sherburne	<i>Pittsfield, N. H.</i>	15 S. Main St.
Perry, Thomas Daniel	<i>Burlington, Vt.</i>	52 Fayerweather
Pickett, Charles Waldo	<i>Portsmouth, N. H.</i>	8 Fayerweather
Pierce, Carlos Thornton	<i>Newton Centre, Mass.</i>	8 Richardson
Piper, Jonathan	<i>Stratham, N. H.</i>	11 Wentworth
Plummer, Curtis	<i>Brookline, Mass.</i>	12 Richardson
Pond, Bremer Whidden	<i>Winchester, Mass.</i>	12 Crosby
Porter, Harry Woodbury	<i>Oldtown, Me.</i>	19 Fayerweather
Powers, Philip Montague	<i>Newton, Mass.</i>	8 College St.
Prichard, Reuben Parker	<i>Somerville, Mass.</i>	16 Crosby
Prouty, Ira Humphrey	<i>Keene, N. H.</i>	17 Fayerweather
Putnam, Boyd Wason	<i>Lowell, Mass.</i>	3 College
Redington, Theodore Towne	<i>Evanston, Ill.</i>	5 N. Park St.
Reilly, James Crowley	<i>Lowell, Mass.</i>	21 College
Reilly, Thomas Edward	<i>Randolph, Mass.</i>	8 College St.
Richards, Earl Thomas	<i>Holyoke, Mass.</i>	19 Reed
Richardson, Charles Potter	<i>Dover, N. H.</i>	3 Proctor
Richardson, Edward	<i>Wellesley Hills, Mass.</i>	2 Reed
Richardson, Elwood Seward	<i>Oak Park, Ill.</i>	25 Fayerweather
Richardson, Philip	<i>Nashua, N. H.</i>	5 N. Park St.

STUDENTS

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Name	Residence	Room
Roberts, Carl Noyes	<i>Place, N. H.</i>	10 W. South St.
Romayne, Harrie Carlyle	<i>Milo Centre, N. Y.</i>	30 Hallgarten
Rowell, Frank Fulton	<i>Sunapee, N. H.</i>	4 College St.
Ryder, Charles Daniel	<i>Stamford, Conn.</i>	22 Thornton
Sanborn, Moses Herman	<i>Fremont, N. H.</i>	24 Hallgarten
Sanborn, Walter Butler	<i>Somerville, Mass.</i>	23 Allen St.
Sanborn, William Augustus, Jr.	<i>Somerville, Mass.</i>	19 Reed
Sandy, Chester James	<i>Chicago, Ill.</i>	11 Elm
Savage, Walter Amasa	<i>Leominster, Mass.</i>	13 Wentworth
Schwarz, Hugo Ignatz	<i>Rutland, Vt.</i>	5 Thornton
Shattuck, Roger Conant	<i>Nashua, N. H.</i>	44 College St.
Shea, Cornelius Charles	<i>Worcester, Mass.</i>	34 N. Main St.
Sibley, Homer Taft	<i>No. Newport, N. H.</i>	23 S. Main St.
Smart, Wilfred Hiram	<i>Canaan, N. H.</i>	2 Bartlett
Smith, Chauncey Wayland	<i>Skowhegan, Me.</i>	4 Allen
Smith, Floyd Tangier	<i>Wakayama, Japan</i>	14 Thornton
Smith, Morris Kellogg	<i>Hanover, N. H.</i>	9 School St.
Smith, Ray Hildreth	<i>Lewiston, Me.</i>	1 Reed
Southgate, Richard Steele	<i>Woodstock, Vt.</i>	23 Richardson
Spear, Arthur Gillman	<i>Standish, Me.</i>	9 Reed
Spelman, Walter Bishop	<i>Champlain, N. Y.</i>	5 Reed
Spencer, Ray Allison	<i>Ayer, Mass.</i>	1 S. Park St.
Sprague, Leon Alfred	<i>Haverhill, Mass.</i>	7 College
Sprague, Loyal Tylor, Jr.	<i>Peoria, Ill.</i>	16 Reed
Stacy, Glenn Norman	<i>Chicago, Ill.</i>	9 Hallgarten
Staples, Charles Wells	<i>Franklin Falls, N. H.</i>	4 Richardson
Stearns, Chester Arthur	<i>Johnson, Vt.</i>	21 College
Stern, Clarence Henry	<i>Albany, N. Y.</i>	21 Fayerweather
Stevens, Albert Emery	<i>Lawrence, Mass.</i>	6 Sargent St.
Stilphen, Cornelius Mortimer	<i>Boston, Mass.</i>	6 Reed
Stokes, Robert Thomas, Jr.	<i>Brooklyn, N. Y.</i>	12 Hallgarten
Stone, Earle Hildreth	<i>Concord, N. H.</i>	9 College St.
Storrs, Harry Carl	<i>Hanover, N. H.</i>	42 S. Main St.
Story, Joseph Marion	<i>Somerville, Mass.</i>	K K K House
Tabor, Parker Wilson	<i>Pittsburg, N. H.</i>	12 Crosby
Tarbell, John Appleton	<i>Somerville, Mass.</i>	7 Reed
Tate, Francis Raymond	<i>Quincy, Mass.</i>	25 S. Main St.
Taylor, Arthur Wendell	<i>Warren, Mass.</i>	9 College St.
Taylor, Franklin Barrett	<i>Centreville, Mass.</i>	25 N. Main St.
Taylor, John	<i>Woonsocket, R. I.</i>	41 S. Main St.
Taylor, Levi Marlon	<i>Haverhill, Mass.</i>	8 Crosby
Temple, Edward Hastings, Jr.	<i>Taunton, Mass.</i>	23 Richardson
Tibbets, Albert Perkins	<i>Somersworth, N. H.</i>	12 Dartmouth
Tileston, Roland Ray	<i>Randolph, Mass.</i>	34 N. Main St.
Trickey, Ernest Hodgdon	<i>Rochester, N. H.</i>	6 College
Tully, Henry Frank	<i>Charlestown, Mass.</i>	7 Pleasant St.

Name	Residence	Room
Tuttle, Howard Myrtle	<i>Portsmouth, N. H.</i>	5 Hallgarten
Twiss, William Bertram	<i>New Bedford, Mass.</i>	20 Hallgarten
Vail, Solon Joshua	<i>Randolph, Vt.</i>	7 S. Park St.
Vaitses, Paul Stephen	<i>Melrose, Mass.</i>	9 Elm
Wadsworth, William John	<i>Kansas City, Mo.</i>	4 Elm
Walker, Raymond	<i>Edgarton, Mass.</i>	41 S. Main St.
Walker, William Dodge	<i>Goff's Falls, N. H.</i>	9 Crosby
Wallace, John Carman	<i>Cleveland, O.</i>	37 Fayerweather
Wallace, James William	<i>St. Louis, Mo.</i>	23 Hallgarten
Warner, Harry James	<i>Muskegon, Mich.</i>	5 Crosby
Washburn, Benjamin Martin	<i>Bethel, Vt.</i>	18 Reed
Wehrle, Walter Goble	<i>Roxbury, Mass.</i>	29 Hallgarten
Wellman, Harvey Richmond	<i>Lowell, Vt.</i>	17 Sanborn
Whitaker, Harry Stewart	<i>Newport, Vt.</i>	9 Elm
White, Alfred Gault	<i>St. Louis, Mo.</i>	21 Hallgarten
Whitney, Alvin Goodnow	<i>Groton, Mass.</i>	18 Reed
Wight, David Edward	<i>Ogdensburg, N. Y.</i>	21 School St.
Willey, William Colby	<i>Goffstown, N. H.</i>	21 Allen St.
Williams, Don Jason	<i>Keene, N. H.</i>	13 Sanborn
Willis, Jay Sumner	<i>Brockton, Mass.</i>	6 College St.
Willson, Charles Wesley Talpey	<i>Farmington, N. H.</i>	10 W. South St.
Wing, Charles Addison †	<i>Montpelier, Vt.</i>	2 Sargent St.
Winslow, Arthur Eugene	<i>Oakland, Me.</i>	40 Fayerweather
Wiswall, Augustus Curtis	<i>Reading, Mass.</i>	22 Sanborn
Witham, William Eastburn	<i>Philadelphia, Penn.</i>	34 N. Main St.
Wood, Louis Carl	<i>Berlin, N. H.</i>	10 Hallgarten
Woodbury, Chester Tenney	<i>Salem, N. H.</i>	1 Bartlett
Woodman, Leslie Samuel	<i>Kingston, N. H.</i>	24 Hallgarten
Woodworth, Charles Parker	<i>Concord, N. H.</i>	13 Crosby
Worthen, Thacher Washburn	<i>Hanover, N. H.</i>	11 Webster Ave.
Wright, Russell Burleigh	<i>LaGrange, Ill.</i>	15 Crosby
Wyman, William Ulysses	<i>Somerville, Mass.</i>	14 Crosby
Young, Percy Lawrence	<i>Boston, Mass.</i>	25 Richardson

† Special Course.

SUMMARY

GRADUATE STUDENTS	. . . . .	22
SENIORS	. . . . .	125
JUNIORS	. . . . .	150
SOPHOMORES	. . . . .	214
FRESHMEN	. . . . .	291
TOTAL	. . . . .	802

DISTRIBUTION BY STATES AND COUNTRIES

MASSACHUSETTS . . .	305	DISTRICT OF COLUMBIA .	2
NEW HAMPSHIRE . . .	216	KANSAS	2
VERMONT	61	MICHIGAN	2
ILLINOIS	49	NEBRASKA	2
NEW YORK	46	TENNESSEE	2
MAINE	42	ARKANSAS	1
CONNECTICUT	17	INDIANA	1
OHIO	11	IOWA	1
RHODE ISLAND	9	JAPAN	1
COLORADO	6	MARYLAND	1
NEW JERSEY	6	MINNESOTA	1
MISSOURI	5	SOUTH CAROLINA	1
PENNSYLVANIA	4	TURKEY	1
CANADA	3	VIRGINIA	1
WISCONSIN	3		

THE LISTS OF STUDENTS IN THE ASSOCIATED
SCHOOLS ARE GIVEN AS FOLLOWS:—

	PAGE
TUCK SCHOOL	213
THAYER SCHOOL	248
MEDICAL SCHOOL	263
SUMMER SCHOOL	296

REQUIREMENTS FOR ADMISSION

ALL CANDIDATES FOR ADMISSION to college must offer satisfactory testimonials of good moral character; and those who have been members of other colleges must present certificates of regular dismission.

CANDIDATES FOR ADMISSION to the Freshman class in the A.B. COURSE must present satisfactory qualifications in the following subjects, in either group, according to specifications given under each subject:

GROUP I	GROUP II
English	English
History I	History I or II
Mathematics I	Mathematics I
Latin	Latin
Greek	{ French or
	{ German
	{ Physics, or
	{ Chemistry, or
	{ Biology

In 1905, and after, the requirements for entrance for the A.B. degree without Greek will be the present requirements of group II, with the addition of one year of a *second* modern language, or a *second* year of history.

CANDIDATES FOR ADMISSION to the Freshman class in the B.S. COURSE (Chandler Scientific) must present satisfactory qualifications in the following subjects, in either group, according to specifications given under each subject:

GROUP III

English
History I or II
Mathematics I
Mathematics II

{ French, or
{ German

{ Physics
{ Chemistry } two of the three.
{ Biology }

GROUP IV

English
History I or II
Mathematics I
Latin, 2 yrs.

{ French, or
{ German

{ Physics
{ Chemistry } two of the three.
{ Biology }

In 1905, and after, the requirements for entrance for the B.S. degree will be increased as follows: instead of an option between Mathematics II and two years of Latin, as now shown in Group III and IV, a candidate must present *two* of the *four* following subjects: Mathematics II, two years of Latin, two years of a second modern language, or two additional years of History.

REQUIREMENTS IN BRIEF

English. — The New England College Entrance Requirements in reading and study, — three periods per week for four years.

History I. — Greek History to the death of Alexander and Roman History to the accession of Commodus, — three periods per week for two years, or five periods per week for one year.

History II. — English History and American History, — three periods per week for two years, or five periods per week for one year.

Mathematics I. — Algebra through the binomial theorem for positive integral exponents, and Plane Geometry. Review of Algebra in last year.

Mathematics II. — Algebra through logarithms, Plane and Solid Geometry, and Plane Trigonometry. Review of Algebra.

Latin. — Cæsar, four books; Cicero, six speeches; poetry, 6000 lines; Latin Composition and sight reading.

Latin (two years). — Latin Lessons; Cæsar, four books, with elementary prose composition.

Greek. — Anabasis, four books; 1500 lines of Homer; Greek Composition and sight reading.

French. — Five periods per week for two years. Translation of at least 800 pages into English. French Composition.

German. — Five periods per week for two years. Translation of at least 400 pages into English. German Composition.

Chemistry. — Three periods per week for one year, one-half in laboratory.

Physics. — Three periods per week for one year, with at least forty experiments in laboratory.

Biology. — Three periods per week for one year; Zoölogy one-half year, Botany, one-half year.

SUBJECTS WITH SPECIFICATIONS

ENGLISH

Two sets of books are prescribed for preparation in English, one for reading, the other for more careful study. No candidate will be accepted in English, whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs. The requirement consists of two parts.

I. Reading. — A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and be able to answer simple questions on the lives of the authors; he must also show the ability to write a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may be allowed to present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's *The Merchant of Venice* and *Julius Cæsar*; The Sir Roger de Coverley Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe*; Carlyle's *Essay on Burns*; Tennyson's *The Princess*; George Eliot's *Silas Marner*; Lowell's *The Vision of Sir Launfal*.

In 1906, 1907, 1908. — Shakespeare's *Macbeth* and *The Merchant of Venice*; The Sir Roger de Coverley Papers in *The Spectator*; Irving's *Life of Goldsmith*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe* and *The Lady of the Lake*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Lowell's *The Vision of Sir Launfal*; George Eliot's *Silas Marner*.

II. Study and Practice. — This part of the requirement presupposes the thorough study of each of the works named below. The test will be upon subject-matter, form, and structure.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essays on Milton and Addison*.

In 1906, 1907, 1908. — Shakespeare's *Julius Cæsar*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essay on Milton*, and *Life of Johnson*.

HISTORY (including Historical Geography)

Either of the two following groups, each including two fields of historical study: — [But candidates for the A.B. degree entering with Greek *must* present I].

I. *Greek and Roman History*. — (a) Greek History to the death of Alexander, with due reference to Greek life, literature, and art. (b) Roman History to the accession of Commodus, with due reference to literature and government.

II. *English and American History*. — (a) English History, with due reference to social and political development. (b) American History, with the elements of Civil Government.

For preparation in each of the two historical fields presented (a) or (b) a course of study equivalent to at least three lessons a week for one year (or five recitations for one year for the two fields together) will be necessary.

The preparation and examination call for: (1) such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than 300 pages, supplemented by suitable parallel

readings amounting to not less than 300 pages; (2) geographical knowledge tested by the location of places, movements, or territorial changes on an outline map (by physical features wherever possible, as well as by political features); (3) comparisons between historical characters, periods, or events; (4) in general the exercise of judgment and the power to combine results of reading in orderly fashion. The last two requirements must be met in part by some forms of written work.

The following list will indicate the nature and amount of work required in text-books and supplementary readings.

Greek History — *Either* (a) Oman's or Myers' History of Greece, with additional reading,

or (b) Fyffe's Greece, Sheldon's Studies, and 400 pages additional reading,

or (c) Fyffe; Curtius' History of Greece, Book i, Ch. i; Book iii, Ch. iii; and *either* (1) Plutarch's Lives of Aristides and Demosthenes, *or* (2) Curtius' History of Greece, Book ii, Ch. iv.

Roman History — *Either* (a) Allen's Short History of the Roman People, and 300 pages additional reading,

or (b) both Creighton's Rome and Sheldon's Studies, and 400 pages additional reading,

or (c) Creighton's Rome; Tighe's Development of the Roman Constitution; and *either* (1) Froude's Cæsar, Ch. xiv, xxvi-xxviii, Plutarch's Lives of Cato the Elder and Cicero, and the comparisons of Cato with Aristides, and of Cicero with Demosthenes; *or* (2) Beesly's The Gracchi, Marius, and Sulla.

English History — *Either* Higginson and Channing's English History for Americans, or Ransome's Short History of England, *or* Montgomery's Leading Facts of English History, *or* Gardiner's English History for Schools, *or* Gardiner's Student's History, each with at least 300 pages additional reading, which may be selected from the following list: — Guest's Lectures on English History, Green's Short History of the English People, Ch. i and Ch. vi, sections iii-vii, Freeman's Short History of the Norman Conquest, Mrs. J. R. Green's Henry II, Creighton's Age of Elizabeth, Gardiner's Puritan Revolution, Macaulay's History of England, Ch. iii, Woodburn's "Lecky's American Revolution," Seeley's Expansion of England.

American History—*Either* (a) Channing's Students' History of the United States or Johnston's History of the United States for Schools, each with 200 pages additional reading,

or (b) Higginson's Young Folks' History of the United States, through Ch. xvi, together with 200 pages additional reading and *either* (1) Channing's United States 1765-1865, *or* (2) Johnston, from beginning of Period V,

or (c) Higginson; Lodge's English Colonies, Ch. ii and xxii; Morse's John Quincy Adams, Ch. ii and iii; Josiah Quincy's Figures of the Past.

The American Historical Association through the report of its Committee of Seven and the New England History Teachers' Association through a concurrent report of its Committee of Six have recommended the following course of study in History in all secondary schools.

1st year, Ancient History to 800 A.D.

2nd year, Mediæval and Modern European History.

3rd year, English History.

4th year, American History and Civil Government.

In view of these reports and their probable adoption in many schools, examinations will be offered and certificates accepted in Ancient History to 800 and Mediæval and Modern European History, as the equivalent of the present Group I, for such schools as have already adopted or are preparing to adopt this course of study.

MATHEMATICS I

Thorough drill in Arithmetic is of vital importance in the study of Mathematics. Facility in the use of integral and fractional numbers should be acquired in the lower grades and retained by the use of numerical examples through the high school course. Short processes and decimals including the metric system should be used habitually. It is assumed that this fundamental work has been done.

Algebra—The fundamental operations, simple equations with applications to problems involving two or more unknown quantities, the principles of factoring, involution and evolution applied to expressions containing fractional and negative exponents, radicals including imaginaries and radical equations, quadratic equations with applications to problems involving two or more unknown quantities, arithmetical and geometrical progression, ratio and proportion, and the binomial theorem for positive integral exponents.

Plane Geometry — The ordinary propositions relating to rectilinear figures, the measure of angles, proportion and similar figures, regular polygons, circles, areas, constructions and computations involving applications of the more important propositions, original propositions.

MATHEMATICS II

Algebra — Including equations in quadratic form, inequalities, indeterminate equations, proportion, variation, the three progressions, binomial formula for any exponent, convergency of series, undetermined coefficients, and logarithms as treated in a college algebra.

Geometry — Solid Geometry, the ordinary propositions relating to right lines and planes in space, to the measurements of prisms, cylinders, pyramids, cones, frustums, the sphere and portions of its surface and volume, the solution of problems involving the computation and comparison of the surfaces and volumes of the cylinder, cone, frustum of cone, sphere, and their principal inscribed and circumscribed solids.

Trigonometry — Plane Trigonometry, the theory of the functions and their relations so far as to furnish formulae for the computation of the tables and the solution of right and oblique triangles, the use of logarithmic and trigonometric tables in the solution of problems.

LATIN

A knowledge of the Latin language sufficient to enable the student —

I. To translate at sight passages of Latin prose and verse, and to answer questions on ordinary forms, constructions, and idioms, and on prosody.

II. To pass a thorough examination on Cicero's speeches against Catiline, ii, iii, and iv, directed to testing the candidate's mastery of ordinary forms, constructions, and idioms of the language.

III. To translate into Latin prose a passage of connected English narrative, based on some portion of the Latin prose works usually read in preparation for college, and limited to the subject-matter of those works.

Careful attention should be given from the beginning to the correct pronunciation of Latin words, both as to quantity and to syllabication. Such pronunciation greatly aids the study of prosody, and is indispensable to the correct reading of Latin poetry.

The examination, except as stated in II above, will be directed to testing the candidate's knowledge of Latin as a whole rather than his knowledge of special works which he has studied. It is believed that

the study of Latin for four years with five lessons a week, covering an amount equal to four books of Cæsar, six speeches of Cicero, and not less than 4500 lines of Virgil and 1500 lines of Ovid, together with constant attention to Latin composition and to reading at sight, will be sufficient to give the required proficiency.

GREEK

A knowledge of the Greek language sufficient to enable the student —

I. To translate at sight simple passages of Attic prose and to answer questions on ordinary forms, constructions, and idioms.

II. To pass a thorough examination on Xenophon's *Anabasis*, Book ii, directed to testing the candidate's mastery of ordinary forms, constructions, and idioms of the language.

III. To translate into Greek prose a passage of connected English narrative, based on a passage from Xenophon's *Anabasis*, Books i and ii.

IV. To pass a thorough examination on 1500 lines of Homer, including questions on prosody. The regular examination will be on the first three books of the *Iliad*, but candidates who present other parts of Homer will be given a special paper on the Homer presented, if they apply to the Dean four weeks before the examination.

V. To read aloud in the Greek, with correct pronunciation, with full expression of the sense of the passage, and, in poetry, with correct expression of the rhythm.

It is believed that the study of Greek for three years with five hours a week, covering an amount equal to four books of Xenophon's *Anabasis* and 1500 lines of Homer, together with constant attention to Greek composition and to reading at sight, will be sufficient to give the required proficiency.

Candidates for admission by certificate must present certificates covering Books i and ii of Xenophon's *Anabasis*, Books iii and iv of the *Anabasis* or their equivalent in other Attic prose, and 1500 lines of Homer.

FRENCH

I. A thorough knowledge of accidence and a familiarity with the essentials of French Syntax.

II. The ability to translate at sight ordinary French prose into simple, idiomatic English.

III. The ability to translate into French a connected passage of English based on the text read.

IV. The ability to write ordinary French at dictation.

V. The ability to pronounce French well.

The following course of study is suggested as adequate to secure the proficiency desired :

FIRST YEAR — FIVE LESSONS A WEEK

Drill in pronunciation. The rudiments of grammar, including the conjugation of regular verbs and of the more frequent irregular verbs ; the inflection of nouns and adjectives (except the rare forms) ; the uses of articles, pronouns, common adverbs, prepositions, and conjunctions ; the order of words in the sentence, and the elementary rules of syntax. The translation into French of simple English sentences illustrating the common forms and principles of grammar. The reading of 300 duodecimo pages of simple French prose, with constant practice in turning into French easy variations of the text read. Oral translation and writing of French at slow dictation.

The following texts are suggested as suitable reading for the first year : Mérimée's *Colomba*, Halévy's *L'Abbé Constantin*, Jules Verne's *Le Tour du monde en quatre-vingts jours*, About's *Le Roi des montagnes*, Lamartine's *Jeanne d'Arc*, Labiche and Martin's *Le Voyage de M. Perrichon*, Malot's *Sans Famille*, Legouvé and Labiche's *La Cigale chez les fourmis*, Erckmann-Chatrian's *L'Histoire d'un paysan* and *Le Conscrit de 1813*, Dumas' *La Tulipe noire*.

SECOND YEAR — FIVE LESSONS A WEEK

By this time the pupil should be familiar with accidence, and the grammar work should be confined to the study of syntax, with composition exercises illustrating its essential rules.

About 550-600 duodecimo pages of French prose of ordinary difficulty should be read, and the pupil should be drilled in pronunciation, in oral and written translations into French of variations of the text read, in oral translation and writing of French from dictation, and, in addition, he should be required to give French paraphrases and abstracts of portions of the reading matter.

The following texts are suggested as suitable reading for the second year : Loti's *Pêcheur d'Islande* ; Augier's *Le Gendre de M. Poirier*, Balzac's *Le Curé de Tours*, Coppée's and Daudet's *Stories*, Molière's

L'Avare and Le Bourgeois gentilhomme, Sandeau's Mademoiselle de la Seiglière, Vigny's La Canne de jonc; Sand's La Mare au diable and La petite Fadette.

GERMAN

- I. Ability to pronounce German well.
- II. Ability to translate *at sight* a passage of German *prose of ordinary difficulty*.
- III. Ability to put into German a connected passage of simple English *paraphrased* from a given German text, or to turn simple English sentences into German without a model.
- IV. Ability to answer any *grammatical* questions relating to *usual* forms and *essential* principles of the language, including syntax and word-formation.
- V. Ability to translate, and to explain, if explanation is called for, a passage of *classical* literature taken from some text previously studied.

The following course of study in German is suggested as adequate to secure the proficiency desired :

FIRST YEAR — FIVE LESSONS A WEEK

(1) *Pronunciation* — Careful attention should be given to the acquisition of a correct pronunciation.

The imitation of the teacher's pronunciation will be the chief factor in the problem; dictation and a knowledge of the rudiments of phonetics will be found very helpful. The attention of the teacher is called to Hempl's German Orthography and Phonology, and to Grandgent's German and English Sounds.

(2) *Memorizing and frequent repetition of easy colloquial sentences* (with variations).

Object — to develop feeling for the language.

(3) *Rudiments of Grammar* (thoroughly learned and studied with exercises).

Declension of articles, nouns (taken from the language of every-day life), adjectives, pronouns. Comparison of adjectives. Auxiliary verbs (of tense and mood). Weak verbs, more usual strong verbs, more usual prepositions and the cases they govern, more usual conjunctions. Sentence order. Elementary syntax.

Thomas's Practical German Grammar recommended.

- (4) *Reading* (narrative prose with some poetry), 150 pages. *either* (a) a Reader with graduated selections followed by short stories, or (b) Märchen and short stories in graduated texts. Storm's Immensee, Zschokke's Der zerbrochene Krug (edition Joynes), Einer Muss Heiraten, and similar stories and plays are recommended.
- (5) *Paraphrasing*—Constant practice in translating into German *easy variations* upon sentences in the reading lesson.

SECOND YEAR — FIVE LESSONS A WEEK

- (1) *Reading* (narrative prose chiefly, a comedy and one classic), 250-300 pages.

The following course is suggested:—

- (a) Short stories—Heyse: L'Arrabbiata (edition Lenz); Riehl: Vierzehn Nothelfer. (b) Selection from historical prose—in Hoffmann's Historische Erzählungen the selection Der deutsch-französische Krieg (edition Beresford-Webb). (c) A comedy—Benedix: Dr. Wespe or Der Prozesz. (d) One classic—Goethe: Hermann und Dorothea. (e) 50 pages of Freytag's prose.

- (2) *Paraphrasing*—Constant practice in variations upon texts read.

- (3) *Grammar*—(a) Drill upon essentials (continued). (b) Enlargement of grammatical knowledge.

- (4) *Word-formation*—Rudiments.

CHEMISTRY

Acquaintance by laboratory work with elementary processes and with the properties of substances common in Chemistry; familiarity with the chemical notation in its experimental and arithmetical meaning, including the ability to solve simple problems based on the relations expressed by formulas and equations; understanding and ability to use correctly the ordinary terms of Descriptive Chemistry. Bartlett's Laboratory Exercises, Parts i-v (exclusive of Class i, Part ii), or equivalent. A certified note-book of laboratory work must be presented at the time of examination. The candidate should have had in addition recitations based upon any good elementary descriptive text-book through the non-metallic and metallic elements.

To meet the above requirement, at least 110 hours of elementary chemistry are necessary, one-half laboratory work, illustrating the

preparation and the properties of the substances ordinarily treated in elementary chemistry. Qualitative Analysis will not be accepted as an equivalent for the laboratory work prescribed.

PHYSICS

The equivalent of at least one hundred and ten one-hour exercises, of which as many as forty should be practical exercises in the laboratory. The student is expected, in the time devoted to the laboratory work, to perform at least forty experiments, and to have kept a neat and orderly record of the same in a note-book, described in his own words. In both recitation and laboratory exercises, some one of the better text-books or manuals for secondary schools should be followed and completed. The note-book should bear the certification of the instructor and be presented for inspection at the time of the entrance examinations to College.

The student should be taught, as far as possible, to apply the simpler principles of Algebra and Geometry to the solution of practical problems in Physics.

BIOLOGY

I. *Zoölogy* — The equivalent of fifty one-hour exercises, consisting mainly of laboratory work in the study of the structure and life-histories of representative animals.

The candidate will be required to present a certified note-book, containing complete records of the conditions under which his observations were made, as well as the observations themselves; also sketches of all the animals, or their organs, that have been studied.

No work necessitating the use of a compound microscope is required.

Work like that outlined in Needham's Elementary Lessons in Zoölogy will be acceptable.

II. *Botany*. — The equivalent of fifty one-hour exercises, consisting mainly of laboratory work on the natural history of plants.

The candidate must present a note-book containing the notes and drawings he has made, and bearing the endorsement of his teacher certifying that the book is a true record of the pupil's own observations. The presentation of an herbarium is not required, and no

weight will be given this evidence of work done unless it illustrates some definite problem in plant relationship.

No work necessitating the use of a compound microscope is required.

Bergen's Elements of Botany or Spaulding's Introduction to Botany. If Gray's lessons are used, they must be supplemented with additional physiology and the use of some such book as Coulter's Plant Relations.

METHODS OF ADMISSION

Every candidate for admission must furnish from the principal of the school which he has attended, or from the tutor with whom he has studied, a testimonial certifying to good moral character and to sufficient preparation for undertaking college work.

Admission to college may be obtained by one of the following methods:—

I. ADMISSION BY EXAMINATION

Two regular examinations for admission to the Freshman Class are held each year, the June examination in the week preceding Commencement and the September examination just before the opening of College.

The *June examination* will be held in Room H, Chandler Hall, on June 22, 23, 24, 25. Three hours will be allowed for each examination, unless otherwise specified.

Examinations for admission to the Freshman class (but not to higher classes) will also be held on the above specified days in June, in Manchester, N. H. (High School); St. Johnsbury, Vt. (Academy); Boston (De Meritte School, 30 Huntington Avenue); Worcester (Academy); New York City (Hamilton Institute, 45 West 81st St.); and Chicago (Hyde Park High School); provided that the number of candidates for examination, preliminary or final, in any of the places named shall warrant it. All applications for examinations in June at these places should be made to the Dean before June 10th.

The College is also prepared to hold an examination for admission to the Freshman class (but not to higher classes) on the above-named days in June in any city or at any school where the number of candidates for examination, preliminary or final, and the distance from other places of examination may warrant it, provided that applications for this purpose be made to the Dean before June 1st.

The *September examination* will be held in Hanover *only*, on September 15, 16, 17, 19, in Room H, Chandler Hall.

Any one intending to take the examinations must register for such examinations on a form which may be obtained from the Dean. Candidates intending to take the examinations in Hanover must present themselves with their credentials at the Dean's office for registration and admission to the examinations one-half hour before the first examination to be taken.

ORDER OF EXAMINATIONS IN JUNE

Physics, Biology	9.00 A. M., June 22
Greek, French, German	3.00 P. M. " 22
Mathematics I	9.00 A. M. " 23
Chemistry, Biology	3.00 P. M. " 23
History I and II	9.00 A. M. " 24
Latin, Mathematics II	3.00 P. M. " 24
English	8.30 A. M. " 25

ORDER OF EXAMINATIONS IN SEPTEMBER

Physics, Biology	3.00 P. M., Sept. 15
Greek, French, German	9.00 A. M. " 16
Chemistry, Biology	3.00 P. M. " 16
Mathematics I	9.00 A. M. " 17
History I and II	3.00 P. M. " 17
Latin, Mathematics II	9.00 A. M. " 19
English	3.00 P. M. " 19

Each candidate taking an examination in Chemistry, Physics, or Biology must present a laboratory note-book certified by his teacher. Note-books will be returned to owners at any time within a year.

A candidate for admission may take all the examinations at one time, or he may divide them between June and September of the same year. Certificates will be issued for such subjects as are passed at each examination, and these certificates will be accepted for admission at any time within a year.

A set of recent examination papers will be sent free to any address on application to the Dean.

PRELIMINARY EXAMINATIONS

Candidates for admission are allowed to take examinations on a part of the requirements one year before matriculation, according to the following specifications:—

Mathematics: Algebra or Plane Geometry.

Latin: 1. The translation at sight of simple prose and verse.

2. A thorough examination on Cicero's speeches against Catiline ii, iii, and iv, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose, involving the use of such words, constructions, and idioms only, as occur in the speeches prescribed.

Greek: 1. The translation at sight of simple Greek prose.

2. A thorough examination on Xenophon's *Anabasis*, Book ii, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Greek prose, involving the use of such words, constructions, and idioms only, as occur in the portion of Xenophon prescribed.

French: Grammar, including composition, and translation of works read during first year, as indicated under the requirements in French.

German: Grammar, including composition, and translation of works, as indicated under the first year requirements in German.

In these examinations no conditions will be imposed, and a failure in any subject will necessitate the re-examination of the candidate in the department to which that subject belongs.

Candidates who have passed the examination will receive certificates for the work done, and these certificates, when presented in the following year, but not later, will be received in place of an examination, in the subjects mentioned in them.

II. ADMISSION BY CERTIFICATE

In place of examinations, certificates will be received from preparatory schools in New England which have been approved by the New England College Entrance Certificate Board; this Board is an association of colleges established for the purpose of receiving, examining, and acting upon all applications of schools in New England which ask for the privilege of certification. This association includes Amherst, Boston University, Bowdoin, Brown, Dartmouth, Mount Holyoke, Smith, Tufts, Wellesley. Certificates are in all cases passed upon, as heretofore, by the individual college, but students are re-

ceived on certificate from such schools only as have been approved by this Board. All schools in New England, which desire the certificate privilege, should apply to the Secretary of the Board, Prof. Nathaniel F. Davis, 159 Brown St., Providence, R. I.

All schools outside of New England, which desire the certificate privilege, should send to the Dean of the Faculty for a printed form of application, containing the conditions for the approval of a school and the requirements which should be met. All applications for approval by the Faculty of the College should be made before *May first*.

Approval of a school will be withdrawn whenever it appears that the work of the school does not reach the standard desired by the College.

No certificate will be accepted from a private tutor.

Certificates should meet the requirements in full, but a certificate will be accepted if it covers two-thirds of the requirements and the candidate will be examined on the remainder; if the certificate fails to cover at least two-thirds of the requirements, the candidate must be examined in full. When a candidate has received his preparation in more than one school, the principal of each school must certify to the work done in his school.

Certificates must be made out on blanks furnished by the Dean of the Faculty, and should be filed at his office before *July first*.

School diplomas will not be accepted for admission to College.

The certificates issued as the result of the examinations, which are held by the College Entrance Examination Board of the Middle States and Maryland will be accepted in so far as they meet the requirements for admission to Dartmouth College.

III. ADMISSION BY REGENTS' CREDENTIALS

Diplomas and sixty count certificates issued by the Regents of the University of the State of New York are accepted in place of examinations in all subjects required for admission which are covered by such credentials.

No other credentials, including pass cards and certificates issued by the Regents are accepted unless they are presented by the holder of a Regents' diploma or sixty count academic certificate.

IV. ADMISSION TO ADVANCED STANDING

Candidates for advanced standing are examined, in addition to the studies required for admission, in those which have been pursued by the class which they propose to enter, or in others equivalent to them. Certificates from schools are not accepted for studies which are offered for advanced standing.

Students from other Colleges, which require the same or equal terms of admission with Dartmouth, and which offer the same or equal courses of study, will be credited with the work for which they bring the record of full standing in their letters of transfer. The following credentials are necessary: a letter of honorable dismissal, a statement of entrance examination, an official detailed statement of the studies pursued for which credit is desired together with standing in same, the exact number of terms of attendance, and a catalogue of the institution marked showing each subject completed.

The privileges of the College are extended to special students who are qualified by age, character, practical experience, and habits of study to profit by college courses. Such properly qualified persons may be admitted as special students upon presenting satisfactory credentials and testimonials, and giving evidence that they are qualified to do specialized work of an advanced character.

The College makes no provision for partial students.

MATRICULATION

After registration and the acceptance of the examination papers or certificates at the office of the Dean, and the payment of the tuition for the first Semester at the office of the Treasurer, the student will receive his matriculation papers from the President of the College.

CREDIT FOR WORK OUTSIDE OF COLLEGE COURSES

No time credit for work outside the College courses shall be allowed without examination.

Time credit for work done outside the College courses, and offered

as an equivalent for College work, may be allowed after the applicant has passed an examination in the course for which he wishes credit.

The omission of elementary courses in any department, without time credit, and admission to more advanced courses in the same department, may be permitted without examination in cases in which certification admits to advanced courses : in other cases only upon examination.

The substitution of a course in one department for a required course in another department can be permitted only upon a satisfactory examination in the required course.

GRADUATE STUDENTS

Graduates of this or any other college, desirous of pursuing their studies in residence, without reference to a degree, may attend the public lectures of the College, and use the library, laboratories, apparatus, and scientific collections, subject to such rules as the Faculty may establish.

Applicants for an advanced degree, whether resident or non-resident, are required to announce to the President on a blank which will be furnished by the Dean of the Faculty on application, as early as the first of October of each year, the particular branches of study to which they wish to give attention during the year, together with all needed statistics and facts. The supervision of their work will then be entrusted to the Committee on Graduate Instruction, to whom all inquiries for further details should be addressed.

COURSES OF INSTRUCTION

The courses of instruction offered lead to the degree of Bachelor of Arts or of Bachelor of Science (Chandler Scientific Course).

Students who entered as candidates for the degree of Bachelor of Letters, previous to the abolition of that degree, may graduate as Bachelors of Letters, or may secure the degree of Bachelor of Arts or Bachelor of Science, by meeting the requirements indicated under the "Group System."

GROUP SYSTEM OF STUDIES

In this system the different departments of instruction are arranged under three groups, namely, "Language and Literature," "Mathematics and the Physical and Natural Sciences," and "History, the Social Sciences, and Philosophy," as follows:—

GROUP I	GROUP II	GROUP III
LANGUAGE AND LITERATURE	MATHEMATICS AND THE NATURAL AND PHYSICAL SCIENCES	HISTORY, THE SOCIAL SCIENCES, AND PHILOSOPHY
<i>Comprising the Departments of</i>	<i>Comprising the Departments of</i>	<i>Comprising the Departments of</i>
Greek	Mathematics	History
Latin	Graphics	Modern History
English	Engineering	The Far East
French	Physics	Economics
Spanish	Astronomy	Political Science
Italian	Chemistry	Sociology
German	Biology	Philosophy
Philology	Anatomy and Physiology	Education
	Geology	Music
	Mineralogy	Archæology

The courses in each department of instruction are graded as A, B, or C; A being the lowest, and C the highest. An A course usually

signifies the first or second year's work in College; a B course, the second or third year's work; a C course, the third or fourth year's work.

The Group System requires electives in certain departments of study, designated as Majors and Minors.

A Minor study consists of at least twelve semester hours in one department; six semester hours in each of two grades, A, B, or C. A Major study consists of at least eighteen semester hours in one department; at least six semester hours in each grade A, B, and C. In certain cases a Major or a Minor is made up from a combination of courses in the different departments, as indicated under "Departments of Instruction."

Courses graded as "B or C" count as B courses when only the regular work of the course is required, but may count as C courses when additional work is assigned by the instructor.

REQUIREMENTS FOR BACHELOR'S DEGREE

The Group System requires that a candidate for the Bachelor's degree must complete a Major study in one of the three groups, and a Minor study in *each* of the other two groups. A candidate for the B.S. degree, however, must also have completed two years of Physics, or of Chemistry, or of Biology, and one year of *each* of the other two, except that those students who take their Senior year in the Thayer School may substitute Mathematics or Graphics for Biology.

An average rank of 60 is required for the group of courses presented by a student for his Major.

Sixteen (16) hours in each semester are required in Freshman year, fifteen (15) to eighteen (18) hours in each semester of Sophomore and Junior years, and not less than twelve (12) hours in each semester of Senior year, — the whole amounting to not less than one hundred and twenty-two (122) semester hours.

Though the requirement for graduation is 122 semester hours, the curriculum is based upon courses rather than upon years; any student may reduce the time required for a degree by such increase in the number of courses each year as, in the judgment of the Faculty, his standing will allow. This privilege is not open to those who have deficiencies due to failure in courses previously taken.

In Freshman year the studies are mainly prescribed. Candidates for the A. B. degree must continue the subjects presented for entrance, except History. Those presenting Greek must continue Greek, Latin, English, Mathematics, and choose between French and German. Those entering without Greek must continue the French or German presented, must begin Greek, German or French, and must continue Latin, English, and Mathematics. Candidates for the B. S. degree must continue the French or German presented, must begin Greek, German or French, must continue English and Mathematics, and must choose one of the five following: Graphics, Chemistry, Biology, Physics, History. Studies elected for Freshman year become prescribed and must be completed to secure a degree.

Members of the Chandler Scientific Course may substitute for the elective studies of Senior year the work of the first year in the Thayer School of Civil Engineering. They may be candidates for the degree of Bachelor of Science with their class, and after a second year of work in the Thayer School they may receive the degree of Civil Engineer. The conditions for such an election will be found under the Thayer School of Civil Engineering.

Candidates for either Bachelor's degree offered by the College who have met the requirements in electives and in rank, as outlined on page 218, under Conditions for Admission to the Tuck School of Administration and Finance, may elect the first-year course in the Tuck School for their work of Senior year. At the close of the year, they may graduate from the College with the Bachelor's degree for which they entered. After a year of graduate study in the Tuck School, they may receive the degree of Master of Commercial Science. The conditions for such an election may be found under the Tuck School.

Students who intend to enter the Medical Department may receive credit for the first year of the medical course by electing such studies as are prescribed for that year, and by registering in the Medical School at the opening of Senior year. The conditions for such an election will be found under the Medical School.

RULES GOVERNING THE ELECTION OF STUDIES

(1) Every student, in making his elections, must meet the requirements and conform to the conditions of the studies he may choose, as set forth in the "Departments of Instruction," and in the "Outline

of Studies." The choice of any elective involves the same requirement in respect to attendance and scholarship as for a prescribed study.

(2) Elections for the second Semester must be communicated to the Dean, in writing, on or before January 10, and for the first Semester on or before June 1.

(3) A student may elect studies assigned to a class below his own, subject to the approval of the instructor concerned. No student will be allowed to elect a study with a class above his own, or any group of electives involving more than a total number of eighteen exercises a week, except by vote of the Committee on Administration.

(4) Any student failing to make his elections at the specified time shall pay into the College Treasury three dollars.

(5) No student will be allowed to change his elections, except by special permission of the Dean, when found to be necessary, and after the payment of two dollars into the College Treasury.

(6) The Faculty will ordinarily withdraw any elective study not chosen by at least four students.

A student in making his elections for Sophomore year should indicate in which *group* he intends to secure a Major, and in making his elections for Junior year should indicate the *departments* in which he intends to secure his Major and his two Minors.

To secure credit for a Minor study in any department, a student must complete courses in that department amounting to six hours in courses graded A, and six hours in courses graded B.

To secure credit for a Major study in any department, a student must complete courses in that department amounting to six hours in courses graded A, six hours in courses graded B, and six hours in courses graded C.

Any exceptions to the above requirements in number of hours, or in the limitations to a single department, will be found after the description of courses in those departments in which exceptions are made.

DEPARTMENTS OF INSTRUCTION

GREEK

I

GREEK LITERATURE

1. *Beginners' Course.*

Professor HUSBAND.

First Semester, 3 hrs.

Grammar and Reader. A course for students who entered without Greek, and who wish to begin it in College.

2. *Beginners' Course (continued).*

Professor HUSBAND.

Second Semester, 3 hrs.

Selections from Xenophon's *Anabasis* and from other Attic Prose Authors. Prose Composition.

3. *Homer, Elementary Course.*

A

Professor C. D. ADAMS.

First Semester, 3 hrs.

Selections from the *Iliad*. Introduction to Homeric language and verse. A course in Sophomore year for students who took courses 1 and 2 in Freshman year.

5. *Herodotus and Plato.*

A

Professors C. D. ADAMS, G. D. LORD, and HUSBAND.

First Semester, 3 hrs.

(a) Herodotus, Books VI and VII. Plato, *Apology*. Writing Greek based on the texts read. This course is given to Division I of those who entered with Greek.

(b) Herodotus, Books VI and VII. Systematic review of forms and syntax. This course is given to Division II.

6. *Euripides and Xenophon.*

A

Professors C. D. ADAMS, G. D. LORD, and HUSBAND.

Second Semester, 3 hrs.

(a) Euripides, *Medea* and *Alcesteis*. Introduction to Greek Drama. This course is given to Division I.

(b) Xenophon, *Memorabilia*. The study of the life and work of Socrates. This course is given to Division II.

7. *Plato.*

B or C

Professor C. D. ADAMS.

First Semester, 3 hrs.

The *Phædo* and selections. Introduction to Platonism. Collateral reading in the History of Greek Philosophy.

8. *Demosthenes.*

B or C

Professor C. D. ADAMS.

Second Semester, 3 hrs.

De Corona. The reading course is preceded by a careful study of the history of Greece from the close of the Peloponnesian War to the death of Alexander, with lectures upon the significance of the struggle with Philip. The oration is studied with special emphasis upon its rhetorical features.

9. *Sophocles.*

B or C

Professor HUSBAND.

First Semester, 3 hrs.

Œdipus Tyrannus. Lectures on the development of Greek Drama.

10. *Aristophanes.*

B or C

Professor HUSBAND.

Second Semester, 3 hrs.

The *Clouds* and the *Acharnians* will be read in the original, and other comedies in translation, to ascertain the attitude of comic writers and the people toward public officials and current events. One comedy will be analyzed carefully as an example of the literary structure of a comedy.

11. *Æschylus.*

C

Professor G. D. LORD.

First Semester, 3 hrs.

The *Oresteia*. The three dramas will be studied in part by class translation, and in part by reading and lectures by the instructor. Lectures on dramatic criticism.

12. *Epic Poetry.*

C

Professor G. D. LORD.

Second Semester, 3 hrs.

The *Iliad* and the *Odyssey* will be read, partly in English versions, with the purpose especially of cultivating literary appreciation of each poem as a whole in the form in which we now have it. Special problems in theories of the European origin of the poems will be discussed and a condensed history of Homeric Criticism will be given.

Courses 12 and 12a are offered in alternate years.

12a. *Elegiac, Iambic, and Lyric Poets.*

C

Professor G. D. LORD.

Second Semester, 3 hrs.

Reading of selections. Historical studies in selected odes of Pindar.

[Offered in 1903-1904.]

13. *Greek Oratory.*

C

Professor C. D. ADAMS.

First Semester, 3 hrs.

Studies in the development of Greek Rhetoric and Oratory. Lectures and exercises in rhetorical criticism. The class will read selections from Gorgias, Isocrates, the Rhetoric of Aristotle, and the works of some of the later rhetoricians; they will also study some of the speeches of Antiphon, Lysias, and Demosthenes.

14. *Late Greek.*

C

Professor C. D. ADAMS.

Second Semester, 3 hrs.

This course is designed to trace the passage of Greek Literature out into the Alexandrine and Roman fields. It includes the reading of selections from the later historians, Polybius, Diodorus, and Plutarch, from the Bucolic Poets, from the Alexandrine Scientists, and from other writers of the late period.

Courses 14 and 14a are offered in alternate years.

14a. *History of Greek Literature.*

C

Professor C. D. ADAMS.

Second Semester, 3 hrs.

Lectures upon the development of Greek Literature and its relation to the political and artistic development of the Greek people. Rapid reading of selections from some authors not included in the preceding courses.

[Offered in 1903-1904.]

II

GREEK LANGUAGE

15. *Sight Translation and Composition.*

B

Professor HUSBAND.

First Semester, 1 hr.

The aim will be to gain facility in grasping the development of thought in a sentence and in a paragraph. Translation at hearing. Murray's *Greek Prose Composition*.

16. *Sight Translation and Composition.*

B

Professor HUSBAND.

Second Semester, 1 hr.

Continuation of Course 15. Systematic study of the Cases, Adjectives, Pronouns, and Prepositions.

17. *Composition.*

B

Professor HUSBAND.

First Semester, 1 hr.

Systematic study of the Tenses and of the Moods in independent clauses. Study of idioms and points of style in some one of the prose authors already read. Gildersleeve's *Syntax of Classical Greek* (Part I, 1900).

18. *Composition.*

B

Professor HUSBAND.

Second Semester, 1 hr.

Continuation of Course 17. Study of the particles and of the Moods in subordinate clauses. Goodwin's *Moods and Tenses*.

20. *Historical Greek Grammar.*

C

Professor HUSBAND.

Second Semester, 3 hrs.

Pronunciation, syllabification, history of inflections, reading and interpretation of inscriptions of each dialect, particularly in their

application to the language of Homer. Linguistic analysis of a portion of the *Iliad*. The course will be preceded by a brief discussion of Indo-European Phonology and the place of Greek in the Indo-European Family. Open to Juniors and Seniors who have continued their work in Greek through Sophomore year. Philology 3 is a prerequisite for this course.

Students who have taken two courses of the group 7, 8, 9, 10, may count the other two as C courses by doing work prescribed by the instructor in addition to that required of the rest of the division.

For courses in Greek Archæology, see Archæology 1, 3, 3a, and 4.

LATIN

1. *Livy*.

A

Professors J. K. LORD, MOORE, and BURTON. First Semester, 3 hrs.

Selections from Books XXI and XXII, with reading at sight from Book I.

2. *Horace and Terence*.

A

Professors J. K. LORD, MOORE, and BURTON. Second Semester, 3 hrs.

Selected *Odes* and *Epodes* of Horace; the *Adelphi* and *Phormio* of Terence; scenic antiquities.

3. *Tacitus and Catullus*.

B

Professor MOORE.

First Semester, 3 hrs.

The *Agricola* and *Germania* of Tacitus; lectures on Roman Britain, and on the Teutonic nations; selected poems of Catullus.

4. *Pliny and Martial*.

B

Professor MOORE.

Second Semester, 3 hrs.

A selection from the *Letters* of Pliny the Younger, and the *Epigrams* of Martial; history of Roman Literature.

5. *Cicero.*

B

Professor BURTON.

First Semester, 2 hrs.

The *Letters* of Cicero. Lectures on topics suggested by the text.

[Not offered after 1903-1904.]

5a. *Plautus.*

B

Professor BURTON.

First Semester, 3 hrs.

The *Trinummus* and the *Captivi*; in addition each student will be required to read one play, and to make report upon it before the class.

[Offered in 1904-1905.]

6. *Tacitus.*

B

Professor BURTON.

Second Semester, 2 hrs.

The *Histories* of Tacitus, with special reference to the style of the historian.

7. *Latin Composition.*

B

Professor BURTON.

First Semester, 1 hr.

The passages will be chiefly from the *De Amicitia* of Cicero, a part of which will be read at sight in the class-room. This is an elementary course, and its main object is to give instruction and drill in the principles of Latin grammar, and the correct method of reading.

8. *Latin Composition.*

B

Professor BURTON.

Second Semester, 1 hr.

Continuation of Course 7.

9. *Cicero.*

C

Professor J. K. LORD.

First Semester, 3 hrs.

De Oratore. The course will follow the development of Roman oratory and Cicero's theory of oratory. Lectures, and criticisms of special speeches. Each student will be required to study carefully a speech of Cicero and to prepare and to read before the class an essay upon it.

[Offered in 1904-1905.]

9a. *Latin Literature.*

C

Professor J. K. LORD.

First Semester, 3 hrs.

Selections from different authors illustrating the development of the literature. Lectures will be given upon the literature and upon individual authors, and essays and reports upon subjects assigned for special study in connection with the course will be required of the students.

Courses 9 and 9a are offered in alternate years.

10. *Horace.*

C

Professor J. K. LORD.

Second Semester, 3 hrs.

The *Satires* and *Epistles* of Horace, with special reference to the social life of the times.

[Offered in 1904-1905.]

10a. *Seneca.*

C

Professor J. K. LORD.

Second Semester, 3 hrs.

The *Essays* and *Epistles* of Seneca.

Courses 10 and 10a are offered in alternate years.

11. *Lucretius.*

C

Professor MOORE.

First Semester, 3 hrs.

Selections from the *de Rerum Natura*.

[Offered in 1904-1905.]

11a. *Vergil.*

C

Professor BURTON.

First Semester, 3 hrs.

Translation and discussion of parts of each work. Investigation of the following subjects: epic, didactic, and pastoral poetry before Vergil; the life of Vergil; his sources and the influence of other writers upon him; the mediæval conception of Vergil.

Courses 11 and 11a are offered in alternate years.

12. *Justinian.*

C

Professor MOORE.

Second Semester, 2 hrs.

The *Institutes* of Justinian, with select passages from Gaius and the *Digest*.

13. *Latin Composition.*

C

Professor J. K. LORD.

First Semester, 1 hr.

A careful study of the idioms, constructions, and principles of arrangement in Latin composition will be made in connection with translations into Latin of passages based upon assigned portions of Latin authors, and of imitations of other portions set as models.

14. *Latin Composition.*

C

Professor J. K. LORD.

Second Semester, 1 hr.

This course is a continuation of Course 13.

15. *Latin Epigraphy I.*

C

Professor BURTON.

First Semester, 1 hr.

This course aims to acquaint students with the nature and use of inscriptions, together with the means available for their study. A selection from the inscriptions of the Republic, mainly to illustrate the development of the language in its formative period.

16. *Latin Epigraphy II.*

C

Professor MOORE.

Second Semester, 1 hr.

The reading and interpretation of inscriptions from the time of the Empire, chosen with reference to their historic interest, or their bearing upon life and manners. In exceptional cases, and with the consent of the instructor, this course may be elected by students who have not taken Course 15.

[Offered in 1904-1905.]

18. *Roman Satire.*

C

Professor BURTON.

Second Semester, 3 hrs.

The development of this form of literature will be considered in its various phases. The class will read selections from Merrill's *Fragments of Roman Satire* and some of the *Satires* of Horace, Persius, and Juvenal.

20. *Historical Latin Grammar.*

C

Professor HUSBAND.

Second Semester, 3 hrs.

History of the alphabet, pronunciation, syllabification, development of sounds and inflections. Allen's *Remnants of Early Latin*

will be interpreted as a basis for the history of forms. This will be supplemented by readings from Lindsay's *The Latin Language*. Open to Juniors and Seniors who have continued their work in Latin through Sophomore Year. Philology 3 is a prerequisite for this course.

21. *Historical Latin Grammar.*

Professor HUSBAND.

First Semester, 3 hrs.

The development of verb stems and inflections, accompanied by an etymological study of the first book of the *Aeneid*. The reading and criticism of typical writings by the Roman Grammarians. Lindsay's *The Latin Language*, Stolz's *Lateinische Grammatik*, Lane's *Latin Grammar*, Keil's *Latini Grammatici* (Vols. I, II, and V).

Open only to graduate students.

22. *Latin Syntax.*

Professor J. K. LORD.

Second Semester, 3 hrs.

A careful review of the principles of syntax, in connection with various grammars, and their application in the study of some particular Latin author.

Open only to graduate students.

23 and 24. *Roman Historical Prose.*

Professor MOORE.

First and Second Semesters, 2 hrs.

A detailed study of the syntax and style of Sallust in the *Jugurtha*, and the fragments of his *Histories*, forms the groundwork of this course.

Open only to graduate students.

ENGLISH

I

COMPOSITION, RHETORIC, AND CRITICISM

1 and 2. *English Composition and Rhetoric.*

A

Professor EMERY, and Messrs. SCALES and SANBORN.

First and Second Semesters, 2 hrs.

An introduction to the study of Rhetoric, with the preparation and criticism of themes, and constant reference to printed examples of correct and incorrect style. (Pearson's *Principles of Composition*, Hill's *Principles of Rhetoric*, Newcomer's *Elements of Rhetoric*, and Wendell's *English Composition*.)

3. *English Composition and the Elements of Style.*

B

Mr. SANBORN.

First Semester, 3 hrs.

This course is designed to acquaint the student with the finer elements of style, both in prose and in verse, and to enable him to use his knowledge in effective literary expression. Daily reports and weekly themes, based upon a wide range of assigned readings.

4. *Composition and Analysis.*

B

Mr. SANBORN.

Second Semester, 3 hrs.

This course is a continuation of Course 3, and is open only to such students as have completed that course.

5. *Advanced English Composition.*

B

Professor EMERY.

First Semester, 3 hrs.

Daily and weekly themes. This course is open to such Seniors and Juniors as are competent to pursue and profit by the course. (Gardiner's *Forms of Prose Literature*.)

6. *English Criticism.*

B

Professor EMERY.

Second Semester, 3 hrs.

The history and comparison of the various schools of criticism in England and America, with constant application of the principles of

criticism to English and American writers. Daily and weekly reports on assigned readings will be required. This course is open only to such students as have passed in English 5. (Winchester's *Principles of Literary Criticism*.)

II

ORATORY AND ARGUMENTATION

8. *Oratory.*

A

Professor LAYCOCK and Mr. SCALES. Second Semester, 1 hr.

A course in the elements of Public Speaking with weekly declamations and orations.

9. *Argumentative Composition and Oratory.*

B

Professor LAYCOCK and Mr. SCALES. First Semester, 3 hrs.

Lectures, Recitations, Briefs, and Forensics, with daily practice in the application of rhetorical and oratorical principles to argumentation. (Baker's *Principles of Argumentation*.)

10. *Argumentative Oratory.*

B

Professor LAYCOCK and Mr. SCALES. Second Semester, 3 hrs.

This is a continuation of Course 9, and is open only to such students as have passed in that course. It will consist of the preparation of numerous briefs and forensics for debate, and daily practice in Oratorical Argumentation.

11. *Voice Culture and History of Oratory.*

C

Professor LAYCOCK. First Semester, 3 hrs.

Lectures, Recitations, and Exercises in Voice Culture. Theses will be written and delivered before the class by the students in this course. (Hardwicke's *History of Oratory and Orators*.) Open only to those who have had English 9 and 10.

[Offered in 1904-1905.]

13. *Forensic Oratory.*

C

Professor LAYCOCK.

First Semester, 3 hrs.

This course is planned especially for those who expect to become lawyers. (Robinson's *Forensic Oratory*.) Open only to those who have had English 9 and 10.

Courses 11 and 13 are offered in alternate years.

III

LITERATURE AND PHILOLOGY

15. *English Literature.*

B

Professor C. F. RICHARDSON.

First Semester, 3 hrs.

Lectures, with assignments of readings and daily illustrations from representative authors. This course is designed to set forth the philosophy of literature, and the relation of writers to their predecessors and contemporaries.

History 1 and 2 are prerequisites for this course.

16. *American Literature.*

B

Professor C. F. RICHARDSON.

Second Semester, 3 hrs.

Lectures, recitations, and daily readings from representative authors, with discussions tending toward the development of independent critical power. (Richardson's *American Literature*.)

English 15 is a prerequisite for this course.

17. *Old English.*

C

Professor HARDY.

First Semester, 3 hrs.

Essentials of phonology and accidence. Reading of selections, mainly prose. This course is open to such Seniors and Juniors as have attained an average rank of 75 in all their previous English courses. (Bright's *Anglo-Saxon Reader*.)

19. *English Lyric Poetry.*

C

Professor C. F. RICHARDSON.

First Semester, 3 hrs.

Lectures on the unity of the arts, and on the principles of versification. (Palgrave's *Golden Treasury*.)

This course is open only to Seniors.

20. *Middle English.*

C

Professor C. F. RICHARDSON.

Second Semester, 3 hrs.

Lectures on pre-Chaucerian grammar; and selections from the *Canterbury Tales*.

This course is open only to such students as have attained an average rank of 75 in all their previous English courses, or have taken English 17.

21. *The English Drama.*

C

Professor EMERY.

First Semester, 3 hrs.

Lectures on the history of the Drama, from the Miracle Plays to the Closing of the Theatres, with constant reading, and oral and written criticism of the plays considered.

22. *Shakespeare.*

C

Professor EMERY.

Second Semester, 3 hrs.

The critical and appreciative study of Shakespeare's plays, with lectures upon Shakespeare as a dramatic artist. Daily reports upon assigned readings will be required. This course is a continuation of Course 21, and is open only to such students as have passed in that course.

ROMANCE LANGUAGES

FRENCH

I

GRAMMAR AND TRANSLATION

1. *First Year Course.*

Professor DOW and Mr. WESTON.

First Semester, 3 hrs.

Pronunciation; Elements of Grammar (Fraser and Squair, Part I) with oral and written exercises to illustrate their application; translation and sight-reading of easy French prose (Fraser and Squair's *French Reader*); memorizing and simple paraphrasing in French of portions of the text read.

2. *First Year Course.*

Professor DOW and Mr. WESTON.

Second Semester, 3 hrs.

Continuation of Course 1. Translation and sight-reading of simple French prose. (Mérimée, *Contes*; Dumas, *La Tulipe Noire*; short stories of Halévy, Margueritte, Maupassant, and others.) Easy oral and written exercises in dictation.

Courses 1-2 are prescribed for Freshmen in the Chandler Scientific Course who do not offer French for admission to College, and for Freshmen in the A.B. Course who do not elect German and who are not eligible to a higher course. Either course may be elected after Freshman year, by students in the A.B. Course not entitled to enter a more advanced course. A separate division (known as French 1-2 advanced) made up of students who have had a slight preparation in French will be formed for the sake of pursuing somewhat more advanced work than that of the other divisions.

3. *Second Year Course.*

A

Professors TAYLOR and LANGLEY and Mr. WESTON.

First Semester, 3 hrs.

Grammar and composition-exercises to illustrate the essential rules of syntax; translation and sight-reading of ordinary French prose. (About, *le Roi des montagnes*; Dumas, *Monte-Cristo*; Michelet, *Extraits de l'histoire de France*; Mérimée, *Chronique du règne de Charles IX*); memorizing and paraphrasing of portions of the text; drill in pronunciation; simple oral and written exercises in dictation.

4. *Second Year Course.*

A

Professors TAYLOR and LANGLEY and Mr. WESTON.

Second Semester, 3 hrs.

Continuation of Course 3. Vigny, *la Canne de jonc*; Hugo, *Quatre-vingt-treize*; Balzac, *Eugénie Grandet*, and several modern French comedies.

5. *Third Year Course.*

A

Professors DOW, TAYLOR, and LANGLEY, and Messrs. SKINNER and WESTON.

First Semester, 3 hrs.

A careful review of syntax (Fraser and Squair's Grammar) with practice in writing in French connected passages of English based

upon a French model; translation and sight-reading of more difficult modern French prose and poetry, with grammatical analyses involving a more thorough knowledge of syntax; dictations in French.

6. *Third Year Course.*

A

Professors DOW, TAYLOR, and LANGLEY, and Messrs. SKINNER and WESTON.

Second Semester, 3 hrs.

Continuation of Course 5. Reading of prose of the nineteenth century together with some comedies of Molière toward the end of the year. (Hugo, *Notre-Dame de Paris*; Zola, *La Débâcle*; Labiche, *La Cagnotte*; Augier, *Le Gendre de M. Poirier*; Molière, *Le Bourgeois gentilhomme*, *Le Médecin malgré lui*.) Composition, syntax, and dictation.

Courses 5-6 are prescribed for Freshmen who offered two years of French for admission to College. They may be elected by students who have passed in Courses 3-4 or by those who have had an amount of French equivalent to the requirements for admission to the Chandler Scientific Course.

II

COMPOSITION AND CONVERSATION

7-8. *Elementary Courses.*

B

Professor TAYLOR.

First and Second Semesters, 2 hrs.

Cameron's *French Composition* will be used as a text-book the first part of the course, and will be followed by exercises based upon some modern French prose work. In addition to the regular work in composition, there will be practice in writing from dictation. Open to students who have passed in Courses 3-4, or in the *advanced* division of Courses 1-2.

9-10. *Advanced Courses.*

B

Professor Dow.

First and Second Semesters, 2 hrs.

François's *Advanced French Composition*. Practice in speaking and writing French. Dictations, readings, and talks in French. The aim of the course is to enable the student to understand readily spoken

French, to train him in the use of common idioms, and to familiarize him with the characteristic features of French public and private life, as subject-matter for conversation. Open to students who have passed in Courses 5-6 or 7-8, and to such other students as may satisfy the instructor of their ability to do the work of the course.

III

LITERATURE

11. *General Survey of French Literature.*

B

Mr. SKINNER.

First Semester, 3 hrs.

In this course students will be given an opportunity to become acquainted with many of the literary masterpieces produced in France during the last three centuries, and at the same time to form some idea of the development of French literature from its beginnings to the present day. Works of the following authors will be read in the class room: Corneille, Racine, Molière, La Fontaine, Descartes, and Pascal. In addition there will be required a considerable amount of collateral reading. Open to students who have passed Courses 3-4, 5-6, and, by permission of the instructor, to such others as may be able to do the work of the course.

12. *General Survey of French Literature.*

B

Mr. SKINNER.

Second Semester, 3 hrs.

Continuation of Course 11. Special attention in this course will be paid to authors of the eighteenth and nineteenth centuries. The class will read selections from the works of Voltaire, Rousseau, Beaumarchais, Chénier, Chateaubriand, Hugo, Alfred de Musset, Alfred de Vigny, Th. Gautier, George Sand, Balzac, Leconte de Lisle, Flaubert, Taine, Renan, Verlaine, Heredia, and Sully-Prudhomme.

13. *Seventeenth Century Literature.*

C

Professor Dow.

First Semester, 3 hrs.

A study of the origin and development of the various forms, with particular attention to the classic French theatre. Reading in class of the masterpieces of Corneille, Racine, Molière, La Fontaine, Sévigné and Boileau. Lectures, themes, collateral reading, and re-

ports. Open to those students who have passed in Courses 11-12, and to such others as may satisfy the instructor of their ability to do the work of the course.

14. *Seventeenth Century Literature.*

C

Professor DOW.

Second Semester, 3 hrs.

Continuation of Course 13.

15. *Eighteenth Century Literature.*

C

Mr. SKINNER.

First Semester, 3 hrs.

This course will be devoted chiefly to the study of Voltaire and Rousseau as embodying the ideas which had important bearing upon the French Revolution. Attention will be given also to Montesquieu, Buffon, Diderot, and the Encyclopedists. Later in the year the theatre of the eighteenth century and the development of the novel will be studied. In addition to lectures and readings in the classroom, a considerable amount of collateral reading of contemporary memoirs and correspondence will be required. Open to those students who have passed in Courses 11-12, and to such others as may satisfy the instructor of their ability to do the work of the course.

16. *Eighteenth Century Literature.*

C

Mr. SKINNER.

Second Semester, 3 hrs.

Continuation of Course 15.

[Courses 15 and 16 offered in 1904-1905.]

17. *Nineteenth Century Literature.*

C

Professor LANGLEY.

First Semester, 3 hrs.

A study of the French and the foreign origins of romanticism in France; of the conflict between romanticism and classicism; of the origin and growth of realism; of the influence of the Northern literatures in France, and of the more recent movements in French literature. Pellissier's *Mouvement littéraire au XIX^e siècle* will be used as a hand-book. Lectures, reading in class, themes, collateral reading and reports: occasional themes in French. Open to those students who have passed in Courses 11-12, and to such others as may satisfy the instructor of their ability to do the work of the course.

18. *Nineteenth Century Literature.*

C

Professor LANGLEY.

Second Semester, 3 hrs.

Continuation of Course 17.

19. *Sixteenth Century Literature.*

C

Professor TAYLOR.

First Semester, 3 hrs.

This course is a study of the language and literature of France during the period of transition from mediæval to modern times. There will be introductory lectures upon the language and literature of the Old French period, followed by critical readings of Marot, Ronsard, Rabelais, Montaigne, and other representative writers of the Renaissance period. *Le Seizième Siècle*, Darmestetter-Hatzfeld (Paris, 1893), will be used as a hand-book. Open, after consultation with the instructor, to those students who have had any one of the other literature courses.

20. *Sixteenth Century Literature.*

C

Professor TAYLOR.

Second Semester, 3 hrs.

Continuation of Course 19.

In French a Minor is obtained by taking Courses 11-12 together with 7-8 or 9-10 in addition to 3-4 or 5-6; a Major by taking, in addition to the requirement for a Minor, one of 13-14, 15-16, 17-18, 19-20.

SPANISH

1-2. *Elementary Courses.*

A

Mr. SKINNER.

First and Second Semesters, 3 hrs.

Elementary Course in grammar, composition, and reading. The object of the course is to enable the student at the end of the year to translate easy English into Spanish, and to read with little difficulty modern prose.

The text-books used will be as follows: Giese, *A First Spanish Book*; Ramsey's *Spanish Grammar*; Padre Isla, *Gil Blas*; Alarcón,

El Capitán Veneno; Galdós, *Doña Perfecta*; Moratín, *El Sí de las Niñas*.

Students are not allowed to elect Spanish 1 and 2, and Italian 1 and 2 in the same year. Spanish 1 will not count toward a degree without Spanish 2.

3-4. *Advanced Courses.*

B

Mr. SKINNER.

First and Second Semesters, 3 hrs.

In the first part of the year grammar study and composition will be continued. In reading, attention will first be paid to the more important contemporary writers, and afterwards to the classic authors of the sixteenth and seventeenth centuries. The whole or parts of the following works will be read: Alarcón, *Historietas Nacionales*; Trueba, *El Cid Campeador*; Cervantes, *Don Quixote*; Calderón, *El Alcalde de Zalamea*; *El Lazarillo de Tormes*. In addition parts of Ticknor's *History of Spanish Literature* will be read.

ITALIAN

1. *Elementary Course.*

A

Professor LANGLEY.

First Semester, 3 hrs.

Elementary course in grammar, composition, and reading.

Text-books to be used: Grandgent's *Italian Grammar* and *Italian Composition*; Bowen's *Italian Reader*; Goldoni's *Il vero amico*; Manzoni's *I promessi sposi*; Barrili's *Una notte bizzarra*.

2. *Dante's Divina Commedia.*

A

Professor LANGLEY.

Second Semester, 3 hrs.

(Scartazzini's one volume edition.) Translation and interpretation of the *Inferno*. Lectures and collateral readings.

To count for a degree both of the above courses must be taken. Students are not allowed to elect Italian 1 and 2 and Spanish 1 and 2 the same year.

4. *Rapid Reading Course.*

A

Professor LANGLEY.

Second Semester, 2 hrs.

This course will give, in addition to training in rapid reading, a survey of representative works of modern Italian literature taken in

the following order : (a) prose : Manzoni, Pellico, Seràò ; (b) drama : Alfieri ; (c) lyric poetry : Foscolo, Leopardi. Open to students who have had Course 1.

5. *Italian Literature of the Fourteenth Century.*

B

Professor LANGLEY.

First Semester, 3 hrs.

Continuation of Dante; representative selections from the *Rime* of Petrarch (Carducci's edition), and the *Decamerone* of Boccaccio (Fornaciari, *Novelle scelte*). A study of the literature of the period, using as text-book Gaspari's *Storia della letteratura italiana*; lectures and collateral readings.

6. *General Survey of the Literature of the Renaissance.*

B

Professor LANGLEY.

Second Semester, 3 hrs.

Representative works of the following authors : Poliziano, Machiavelli, Bembo, Ariosto, Berni, Cellini, Vasari, Guarini, Tasso. As text-book D'Ancona e Bacci, *Manuale della letteratura italiana*, vols. 2 and 3. Lectures and collateral readings.

Courses 5 and 6 are open only to those who have passed in Courses 1 and 2.

GERMAN

1-2. *Elementary (First Year).*

Professors W. A. ADAMS, HARDY, Messrs. STEWART and VESTLING.

First and Second Semesters, 3 hrs.

(a) Pronunciation, (b) Memorizing and frequent repetition of easy colloquial sentences, (c) Rudiments of Grammar with exercises (Thomas's), (d) Reading selections from a German Reader, (e) Constant practice in translating into German easy variations upon sentences selected from the reading lesson, (f) Reading at sight.

Students taking Course 1 *must* also take Course 2 the next Semester. Courses 1 and 2 are prescribed for Freshmen in the Chandler Scientific Course who do not offer German for

admission to College, and for Freshmen in the A.B. Course who do not elect French on entering and are not eligible to Courses 3 and 4, or 5 and 6. Courses 1 and 2 may also be elected later than Freshman year by students in the A.B. Course not qualified to enter a more advanced course. These courses will not count toward Minors or Majors in the Group System.

3. *Elementary (Second Year).*

A

Professor HARDY and Mr. STEWART.

First Semester, 3 hrs.

Reading of narrative prose and a story or a comedy. Grammar, paraphrasing of texts read, word-formation.

Course 3 is a continuation of Courses 1 and 2. Students having had Courses 1 and 2, and wishing to continue their German, *must* choose Course 3. Students taking Course 3 are expected to elect Course 4 the next Semester.

4. *Elementary (Second Year).*

A

Professor HARDY and Mr. STEWART.

Second Semester, 3 hrs.

Continuation of Course 3.

5. *Advanced (Third Year).*

A

Messrs. STEWART and VESTLING.

First Semester, 3 hrs.

Reading of narrative prose and a story. Review of grammar, paraphrasing of texts, word-formation.

6. *Advanced (Third Year).*

A

Messrs. STEWART and VESTLING.

Second Semester, 3 hrs.

Continuation of Course 5. Narrative prose. Heine: Prose and Poems. Grammar, paraphrasing.

Courses 5 and 6 are prescribed for Freshmen who offered two years of German for admission to College. They may be elected by students who have passed in Courses 3 and 4 or by those who have had an amount of German equivalent to the requirements for admission to the Chandler Scientific Course. An advanced section will do work of B grade and may be elected by upper classmen.

7. *Modern German Prose.*

B

Professor HARDY.

First Semester, 3 hrs.

Reading of a considerable amount of prose taken from representative modern writers.

Course 7 is open only to those who have previously had at least *two* years of German.

8. *Modern German Prose (continued).*

B

Professor HARDY.

Second Semester, 3 hrs.

Continuation of Course 7.

9. *Lyrics and Ballads.*

B

Professor W. A. ADAMS.

First Semester, 3 hrs.

Reading of a considerable amount of representative German lyrics and ballads. Study of authors and periods.

Course 9 is open only to those who have previously had at least *two* years of German. [Omitted in 1903-1904.]

11. *Lessing, Works and Life.*

B

Professor W. A. ADAMS.

First Semester, 3 hrs.

Reading of plays and prose writings with study of life. *Minna von Barnhelm*; *Emilia Galotti*; *Nathan der Weise*.

Course 11 is open only to those who have previously had at least *two* years of German.

12. *Schiller, Works and Life.*

B

Professor HARDY.

Second Semester, 3 hrs.

Reading of plays, poems, and prose writings with study of life. *Wilhelm Tell*; *Wallensteins Tod*; *Gedichte*; *Der dreissigjährige Krieg*.

Course 12 is open only to those who have previously had at least *two* years of German.

13. *German Drama.*

B

Professor HARDY.

First Semester, 3 hrs.

Reading of plays with study of the drama. Selection made from the following list: Lessing: *Minna von Barnhelm*; *Emilia Galotti*. Goethe: *Götz von Berlichingen*; *Iphigenie auf Tauris*. Schiller: *Wilhelm Tell*.

[Omitted in 1903-1904.]

14. *German Drama (continued).*

B

Professor HARDY.

Second Semester, 3 hrs.

Continuation of Course 13. Selection made from the following list: Schiller: *Wallenstein*. Kleist: *Der Prinz von Homburg*. Freytag: *Die Journalisten*. Hauptmann: *Die versunkene Glocke*. Sudermann: *Johannes (or Die Heimat)*.

Courses 13 and 14 are open only to those who have previously had at least *two* years of German. [Omitted in 1903-1904.]

15 and 16. *Composition and Conversation.*

B

Mr. STEWART.

First and Second Semesters, 3 hrs.

Course 15 is open only to those who have previously had at least *two* years of German, and have attained an average rank of 70 in all their previous German courses. Course 16 is open only to those who have taken Course 15.

18. *Nineteenth Century Literature.*

C

Mr. STEWART.

Second Semester, 3 hrs.

The history of German literature will be traced from the beginning of the Romantic Movement down to the present time with illustrative readings from various representative writers. The work will consist of lectures, recitations, reports, and outside reading.

Open only to Juniors and Seniors who have previously had at least *three* years of German.

[In 1904-1905 this course will be given as German 17 and 18 during the entire year, and thereafter will alternate with German 21 and 22.]

19. *Goethe, Works and Life.*

C

Professor W. A. ADAMS.

First Semester, 3 hrs.

Poems; Götz von Berlichingen; Iphigenie.

20. *Goethe (continued).*

C

Professor W. A. ADAMS.

Second Semester, 3 hrs.

Continuation of Course 19. *Faust I* and parts of *Faust II*.

Courses 19 and 20 are open only to those who have previously had at least *two* years of German and ordinarily would be taken most satisfactorily after *three* years of work in German. Con-

sent of the instructor is necessary for those who have previously had only *two* years of German. Course 20 may be chosen by those who have not taken Course 19.

21. *History of German Literature.* C
 Professor W. A. ADAMS. First Semester, 3 hrs.
 History of German Literature, supplemented by the reading of representative pieces of literature.

Permission of the instructor required before electing this course.

22. *History of German Literature (continued).* C
 Professor W. A. ADAMS. Second Semester, 3 hrs.
 Continuation of Course 21.

23. *Goethe's Life and Works and their Significance.* C
 Professor W. A. ADAMS. First Semester, 1 hr.
 A course of informal lectures. Assigned readings. Knowledge of German not required.

[Offered in 1904-1905.]

24. *History of the German Language.* C
 Professor HARDY. Second Semester, 3 hrs.
 Lectures and reading of texts. Open to graduate students and, upon consent of the instructor, to Seniors and Juniors who have previously had at least *three* years of German.

25. *Lessing.*
 Professor W. A. ADAMS. First Semester, 3 hrs.
 Advanced course in Lessing. Open only to graduate students.

26. *Goethe.*
 Professor W. A. ADAMS. Second Semester, 3 hrs.
 Advanced course in Goethe. Open only to graduate students.

Courses 11-12 and 13-14, 17-18 and 21-22, 24 and 26 are given in alternate years. In 1904-1905 courses 13-14, 17-18, and 26 will be given.

PHILOLOGY AND LINGUISTICS

1. *Elementary Linguistics.*

A

Professor HUSBAND.

First Semester, 3 hrs.

A general non-technical course treating of the history of language; the relation existing among the most important European languages; the sounds of language, with description of the organs of speech and hearing; methods of recording speech; principles of change in language; rise of dialects, with methods of determining good usage. Open to all Juniors and Seniors.

3. *Phonetics.*

B

Professor HUSBAND.

First Semester, 1 hr.

Based chiefly upon a study of the English sound-system; brief description of the action of the organs of speech and hearing; methods of recording speech. Intended as a basis for the study of historical grammar and for the practical teaching of the sounds of language. Soames's *Introduction to the Study of Phonetics* (1900). Open to Juniors and Seniors who have obtained an average rank of 70 in their language work of Freshman and Sophomore years.

5. *Advanced Linguistics.*

C

Professor HUSBAND.

First Semester, 3 hrs.

Analysis of languages to establish a basis of classification. Rise and differentiation of dialects. Analogical, phonetic, and semantic changes in language. Considerable attention will be given to the psychological aspect of the phenomena of language. Oertel's *Lectures on the Study of Language* will be used as a text-book, and collateral readings will be required from other recent literature. Open only to those Seniors who have had courses in Historical Grammar in Greek, Latin, French, German, or English.

6. *Historical Greek Grammar.*

C

Professor HUSBAND.

Second Semester, 3 hrs.

See Course 20 under Greek.

7. *Old English.* C
 Professor HARDY. First Semester, 3 hrs.
 See Course 17 under English.
8. *Historical Latin Grammar.* C
 Professor HUSBAND. Second Semester, 3 hrs.
 See Course 20 under Latin.
10. *Middle English.* C
 Professor C. F. RICHARDSON. Second Semester, 3 hrs.
 See Course 20 under English.
12. *History of the German Language.* C
 Professor HARDY. Second Semester, 3 hrs.
 See Course 24 under German.

MATHEMATICS

1. *Algebra.* A
 Professor WORTHEN and Messrs. HOLDEN and MITCHELL.
 First Semester, 4 hrs.
 Quadratic and indeterminate equations, ratio and proportion, variation, series, binomial formula, logarithms, permutations and combinations, theory of equations, graphic algebra. (Wells's *College Algebra*.)
- 1a, 3. *Algebra and Spherical Trigonometry.* B
 Professor SHERMAN. First Semester, 4 hrs.
 (1a). Algebra. Logarithms, permutations and combinations, probability, continued fractions, summation of series, theory of equations, graphic algebra. (Wells's *College Algebra*.) (12 weeks.)
 (3). Spherical Trigonometry, with applications to geodesy and astronomy. (Phillips and Strong.) (6 weeks.)

2. *Solid Geometry.*

A

4, 4a. *Plane and Spherical Trigonometry.*

B

Professor WORTHEN and Messrs. HOLDEN and MITCHELL.

Second Semester, 4 hrs.

(2). Solid Geometry, with original demonstrations, and the solution of problems relating to the surfaces and volumes treated. (Phillips and Fisher.) (7 weeks.)

(4). Plane Trigonometry, with applications to problems in surveying. (Phillips and Strong.) (7 weeks.)

(4a). Spherical Trigonometry. (Phillips and Strong.) (4 weeks.)

6, 8. *Analytic Geometry.*

B

Professor SHERMAN.

Second Semester, 4 hrs.

(6). Plane Analytic Geometry, including Higher Plane Curves. (Hardy.) (13 weeks.)

(8). Analytic Geometry of three dimensions. (Hardy.) (5 weeks.)

5, 7, 9. *Analytic Geometry and Differential Calculus.*

B

Professor WORTHEN.

First Semester, 4 hrs.

(5). Plane Analytic Geometry, including Higher Plane Curves. (Hardy.) (10 weeks.)

(7). Analytic Geometry of three dimensions. (Hardy.) (3 weeks.)

(9). Differential Calculus, with geometrical applications. (Hardy.) (5 weeks.)

10, 10a. *Differential and Integral Calculus.*

C

Professor WORTHEN.

Second Semester, 4 hrs.

(10). Differential Calculus, with geometrical applications. (Hardy.) (9 weeks.)

(10a). Integral Calculus, with applications to analytic geometry. (Hardy.) (9 weeks.)

11. *Differential Calculus.*

C

Professor SHERMAN.

First Semester, 4 hrs.

Differential Calculus, with geometrical applications. (Hardy.)

12. *Integral Calculus.*

C

Professor SHERMAN.

Second Semester, 4 hrs.

Integral Calculus, with applications to analytic geometry, and including the elements of Differential Equations. (Murray.)

Courses 1, 2, 4, 4a, 5, 7, 9, 10, and 10a are intended for those who enter with Mathematics I; Courses 1a, 3, 6, 8, 11, and 12 are intended for those who enter with Mathematics II. Either of the above series is essential for the pursuit of the advanced courses in Engineering, Physics, and Astronomy.

13. *Differential Equations.*

C

Professor WORTHEN.

First Semester, 3 hrs.

Text-book, Murray.

14. *Determinants.*

C

Professor SHERMAN.

Second Semester, 2 hrs.

Text-book, Weld.

15. *Quaternions.*

C

Professor SHERMAN.

First Semester, 3 hrs.

Text-book, Hardy.

16. *Elliptic Functions.*

C

Professor SHERMAN.

Second Semester, 2 hrs.

Text-book, Baker.

18. *Theory of Functions.*

C

Professor WORTHEN.

Second Semester, 3 hrs.

Text-book, Durege.

GRAPHICS

1. *Mechanical Drawing.*

A

Professor HAZEN, Messrs. HOLDEN and SMITH.

First Semester, 3 hrs.

An introductory course treating of the instruments used and the methods of using them. It includes the construction of engineering, mechanical, and architectural drawings, lettering, and shading.

2. *Mechanical Drawing.*

A

Professor HAZEN and Mr. HOLDEN.

Second Semester, 3 hrs.

Tinting. Descriptive Geometry as applied to elementary projection drawing.

3. *Descriptive Geometry.*

B

Professor HAZEN.

First Semester, 3 hrs.

Descriptive Geometry, as applied to third angle projections and to the construction of projections and sections from models and actual structures; to the representation by drawings or projections of all geometrical magnitudes and to the intersections and tangencies of developable, double-curved, and warped surfaces.

4. *Descriptive Geometry.*

B

Professor HAZEN.

Second Semester, 3 hrs.

Descriptive Geometry continued, and applied to spherical projections, shades and shadows, and linear perspective, axonometric projections, and cavalier perspective.

Courses 1, 2, 3, and 4 are required for the subsequent election of the Thayer Engineering Course.

4a. *Topographical and Machine Drawing.*

C

Professor HAZEN.

Second Semester, 2 hrs.

A course in topographical drawing and machine drawing, including tracing and blue-printing.

(THAYER SCHOOL COURSES)

5. *Plotting of Surveys.*

C

Professors HAZEN and MANN.

40 half-days.

Plotting of land, stadia and railroad surveys.

This course constitutes a part of the Thayer School Courses 3, 4, and 5, and the half-days here given are included in the time allotted to those courses.

6. *Graphical Statics.*

C

Professor HAZEN.

24 half-days.

This includes the first principles of the subject and the determination of the stresses in roof and bridge trusses.

This course is a part of the Thayer School Course 11, and the half-days here given are included in the time allotted to that course.

CIVIL ENGINEERING

2. *Surveying.*

A

Professor HAZEN.

Second Semester, 3 hrs.

Surveying with level, transit, and compass; the adjustments, care, and proper methods of using these instruments. This course includes the methods of determining areas; laying out and dividing land; practice with the solar transit used in surveying the public lands; determination of true meridian by the sun and polar star; levelling for profiles, city surveying, plotting, and computing from field notes taken in connection with the above work.

(THAYER SCHOOL COURSES)

3. *Surveying.*

B

Professor MANN and Mr. HOLDEN.

65 half-days.

Theory, adjustments, and use of instruments, including the transit, theodolite, level, plane-table, solar transit, sextant, aneroid barometer, and precise level; land surveying; topographical, hydrographical, and city surveying.

4. *Railroad Engineering.*

C

Professor HAZEN and Mr. HOLDEN.

55 half-days.

This course includes a reconnaissance, preliminary and location surveys, and estimates of a line from two to three miles long through a country as difficult as is ordinarily met with; also a study of the various forms of easement or transition curves.

5. *Higher Surveying.*

C

Professor MANN and Mr. HOLDEN.

40 half-days.

This course includes geodetical field-work and computations; the determination of latitude and time by the sextant and transit; azimuth by observations on the sun, Polaris, and some other star at elongation; also photography applied to surveying. Theory and applications of Least Squares.

6. *Analytic Mechanics.*

C

Professor FLETCHER.

70 half-days.

Analytical Mechanics and general applications ; kinematics, dynamics ; statics and kinetics. Principles and working conditions, including friction and various applications. Elements of Mechanism.

7. *Masonry Constructions.*

B

Professors FLETCHER and HAZEN.

40 half-days.

This course includes a study of building stones, brick and mortar ; the building of stone, brick, and artificial stone masonry ; of foundations on land, on piles, and under water ; of masonry dams, retaining walls, bridge abutments and piers, culverts and arches ; a course in Practical Mineralogy and the testing of limes and cements in the laboratory.

8. *Stone-cutting.*

A

Professor HAZEN.

20 half-days.

Stone-cutting, including the discussion and designing of arches and wing walls.

9. *Mechanics of Materials.*

C

Professor MANN.

30 half-days.

Mechanics of Materials, including the theory of beams, columns, and shafts ; the methods of designing such elementary structures, and bridge and roof connections and joints.

10. *Highway Engineering.*

A

Professor HAZEN.

20 half-days.

This course considers the approved methods of constructing Macadam, Telford, gravel, and common earth roads ; wood, stone, brick, and asphalt pavements for cities ; and the proper methods of maintaining country roads and city pavements.

11. *Roofs and Bridges.*

C

Professors HAZEN and MANN.

36 half-days.

Roofs and Bridges, including analytical and graphical determination of the stresses in roof and bridge trusses. Design of a simple roof and a bridge.

12. *Materials of Engineering.*

C

Professors FLETCHER and MANN.

26 half-days.

Materials of Engineering, including wood, building stones, and the manufacture of iron and steel, the methods of testing all of these materials, and a study of the machines used in making these tests.

PHYSICS

1-2. *General Physics.*

A

Professor HULL and Mr. BROWN.

First and Second Semesters, 3 hrs.

A study of the phenomena and simpler laws of Mechanics, Sound, Heat, Electricity, Magnetism, and Light. Instruction is given by lectures with an ample number of illustrative experiments, by recitations and frequent examinations upon the lectures and text-book assignments.

Courses 1 and 2 belong together and should not be elected separately.

Earlier work in Physics is not required for entrance to these courses, but Mathematics 1 and 4, or their equivalents, are a prerequisite.

Physics 3 and 4 may be carried at the same time with 1 and 2. Students intending to specialize in the physical sciences, or who wish to complete a Minor in Physics early in the college course, are advised to elect courses 1, 2, 3, and 4 in sophomore year.

3. *Practical Physics.*

B

Professor GILBERT and Messrs. BROWN and SMITH.

First Semester, 3 hrs.

A course in the theory and use of instruments of precision and in the experimental verification and application of physical laws. In particular, the micrometer and vernier calipers, the spherometer, and the micrometer eyepiece are used for measuring length; the seconds clock, stop-watch, chronograph, and tuning fork for measuring time; spring, pan, and analytical balances, and inertia methods for measuring mass; the laws of the pendulum and of falling bodies are used to determine

"*g*"; the laws of forces, moments, moments of inertia, centres of mass, Hooke's, Boyle's, and Charles's laws are verified; the densities of solids and liquids are measured in a number of ways; the laws of vibrating strings, the measurement of the period, wave-length, and velocity of propagation of wave disturbances in different media are determined. Experiments are performed in the study of thermometers, in calorimetry, in the expansion, due to heat, of solids, liquids, and gases, and in the measurement of specific and latent heats.

While care in manipulation and accuracy of observation are required of the student, it is also essential that he understand thoroughly the principles involved in the experiments. Oral reviews and tests will be held at convenient intervals to determine to what extent these principles have become a part of the student's knowledge.

A laboratory manual (Ames and Bliss) will be used by the student; other texts will be consulted. Laboratory fee, \$3.

4. *Practical Physics.*

B

Professor GILBERT and Messrs. BROWN and SMITH.

Second Semester, 3 hrs.

A continuation of Course 3, extended into the study and experimental verification of the general laws of Electricity, Magnetism, and Light. The exercises include the mapping of electric and magnetic fields and lines of current-flow, the determination of the strength of magnetic fields, the measurement of the resistance of wires, liquids, batteries, and galvanometers, the measurement of electromotive force, capacity, temperature-coefficient of wires, the electrochemical and heat equivalent of an electric current, and the use of the D'Arsonval, Thomson, and tangent galvanometers.

In Light, the laws of photometers and mirrors, the measurement of the focal length and magnifying power of lenses and combinations of lenses, the index of refraction of glass, the spectra of a number of substances, the wave lengths of light, and the simple laws of polarization and double refraction are determined or verified. Laboratory fee, \$3.

5. *Analytic Mechanics.*

C

Professor GILBERT.

First Semester, 3 hrs.

A course of lectures on Statics, including the composition and resolution of forces acting on a particle and on a rigid body; efficiency of machines, sensitiveness of a balance, equilibrium of flexible strings and

the elementary theory of attractions; kinematics; dynamics, the motion of projectiles, collision of elastic bodies, simple harmonic motions and central orbits. Without sacrificing the rigidity of mathematical deductions, recourse will be had, where occasion permits, to experimental illustrations. Text: Williamson and Tarleton. Prerequisites, Differential and Integral Calculus, and Physics 1 and 2.

6. *Wave Motion.*

C

Professor HULL.

Second Semester, 3 hrs.

A course of lectures and recitations on the theory of Heat; thermodynamics, including the elementary kinetic theory of gases, and the theory of solutions. Lectures and text references. Prerequisites, Physics 1 to 4 inclusive, Differential and Integral Calculus.

7. *Advanced Optics.*

C

Professor HULL.

First Semester, 3 hrs.

This course will consist of lectures, experimental and theoretical, recitations, and laboratory work. The domain covered will be nearly that of Preston's *Theory of Light*. Laboratory exercises in the measurement of the refractive index and dispersive power of glass, of the wave length of light by the grating and interferometer, and of the phenomena of diffraction and polarization, will be performed by the students. Prerequisites, Differential and Integral Calculus, and Physics 1 to 4. Laboratory fee, \$3.

7a. *Electricity and Magnetism.*

C

Professor HULL.

First Semester, 3 hrs.

A course of lectures and recitations on the theory of electricity and magnetism, following for the most part J. J. Thomson's text. Applications of the theory will be made by the students in the experimental study of electrometers, the inductive capacity of dielectrics, stream and equipotential lines, and galvanometers. Prerequisites, Physics 1 to 4 inclusive, Differential and Integral Calculus.

[Offered in 1904-1905.]

8. *Electricity and Magnetism, Alternating Currents.*

C

Professor GILBERT.

Second Semester, 3 hrs.

A course of lectures and recitations on the theory of alternating currents with experimental applications to wattmeters, measurement of hysteresis, transformers, alternators, synchronous and induction

motors, transmission of power, etc. Text-book, "Alternating Currents" by Franklin and Williamson. Prerequisites, Differential and Integral Calculus, Physics 1 to 4, and Physics 7a.

9. *Advanced Laboratory Work.*

C

Professor HULL.

First Semester, 3 hrs.

A course in the accurate measurement of mass, length, and time. Prerequisites, Physics 1 to 4 inclusive. Laboratory fee, \$3.

10. *Advanced Laboratory Work.*

C

Professor HULL.

Second Semester, 3 hrs.

A course in electrical measurements. Prerequisites, Physics 1 to 4 inclusive. Laboratory fee, \$3.

11 and 12. *Physical Seminar.*

First and Second Semesters, 2 hrs.

A seminary for the discussion of the current periodical literature and special research problems in Physics.

13 and 14. *Research Problems.*

Professors HULL and GILBERT. First and Second Semesters, 3 hrs.

A course in investigation and research problems in Physics.

Of the foregoing, Courses 1 to 5 may be elected by undergraduate students only, 6 to 10 are open both to undergraduates and graduates, 11 to 14 are open only to graduate students.

The requirement for a Minor in Physics includes Courses 1, 2, 3, and 4. The requirement for a Major includes Courses 1, 2, 3, and 4, and any two of the advanced Courses 5, 6, 7, 8, 9, and 10, except the combination of 9 with 10.

ASTRONOMY

1. *Descriptive Astronomy.*

A

Mr. POOR.

First Semester, 3 hrs.

A recitation course in general descriptive Astronomy, supplemented by occasional lectures and visits to the Observatory. The previous study of elective courses in Mathematics is not necessary, but a

knowledge of Analytic Geometry is desirable. Prerequisite, Physics 1, 2. (Young's *Manual of Astronomy*.)

2. *Spherical Astronomy*.

B

Mr. POOR.

Second Semester, 3 hrs.

A recitation course in the relation of Spherical Trigonometry to Practical Astronomy with practice in computation. Students will be required to make observations with the Sextant, Meridian Circle, and Equatorial, and perform the necessary reductions. Prerequisites, Spherical Trigonometry, Differential and Integral Calculus, and Astronomy 1. (Campbell's *Practical Astronomy*.)

2a. *Mathematical Astronomy*.

B

Mr. POOR.

Second Semester, 3 hrs.

A course in such mathematical subjects as are necessary for a later study of Celestial Mechanics. Students electing this course must have taken Astronomy 1 and Differential Equations, and be able to read French and German.

3. *Practical Astronomy*.

C

Mr. POOR.

First Semester, 3 hrs.

A continuation of Course 2, consisting of a more complete development of some special subjects. The method of Least Squares will be briefly studied. Prerequisite, Astronomy 2. (Chauvenet's *Practical Astronomy*.)

3a. *Celestial Mechanics*.

C

Mr. POOR.

First Semester, 3 hrs.

Lectures and collateral reading. Prerequisites, Analytic Mechanics, Differential Equations, and Astronomy 2. (Moulton's *Celestial Mechanics*.)

4. *Practical Astronomy (or Astrophysics)*.

C

Mr. POOR.

Second Semester, 3 hrs.

A continuation of Course 3, or, if the class so desire, such observational work in Astrophysics as can be carried on at the Observatory, supplemented by reading from astrophysical papers and the reduction of astrophysical observations. Prerequisite for Practical Astronomy, Astronomy 3; for Astrophysics, Astronomy 2.

4a *Celestial Mechanics.*

C

Mr. POOR.

Second Semester, 3 hrs.

A continuation of Course 3a. Prerequisites, Astronomy 2a and 3a.

CHEMISTRY

2. *Chemistry of the Non-Metallic Elements.*

A

Professor BARTLETT and Mr. L. B. RICHARDSON.

Second Semester, 3 hrs.

Lectures, recitations, and laboratory work. In this course special emphasis is laid upon the general principles of Chemistry, the Notation in its experimental and arithmetical meaning, upon Nomenclature and Terminology in their applications. Some familiarity with the properties of chemical substances and with processes is acquired. A beginner's course open to students who have had no chemistry in their preparation for College. Laboratory fee, \$2.

3. *Metallic Elements and their Compounds.*

A

Dr. BOLSER and Mr. RICHARDSON.

First Semester, 3 hrs.

A systematic course, reviewing the Non-Metallic Elements rapidly, developing the more essential theories, and treating the Metallic Elements and their compounds by lectures, recitations (Newth's *Inorganic Chemistry*), and by Qualitative Analysis in the laboratory. For completeness students who elect this course should elect Course 4 also. It divides the time about equally between one-hour recitations and two-hour laboratory exercises. Open to all students who have had Course 2, or its equivalent.

Entrance Physics, or Physics 1, is a desirable foundation for this course. Laboratory fee, \$3.

4. *Continuation of Course 3.*

A or B

Dr. BOLSER and Mr. RICHARDSON.

Second Semester, 3 hrs.

The study of the Metals and their compounds is completed, and more complex problems of Qualitative Analysis are introduced. Practice in Arithmetical calculations. Laboratory fee, \$3.

5. *The Carbon Compounds.*

B or C

Dr. BOLSER.

First Semester, 3 hrs.

The Carbon Compounds. Recitations (Remsen's *Organic Chemistry*) and lectures with regular written reviews. Laboratory work in preparation of representative compounds of the important series of organic chemistry and in methods for their identification. Open to students who have completed Courses 3 and 4. Laboratory fee, \$4.

6. *The Carbon Compounds.*

C

Dr. BOLSER.

Second Semester, 3 hrs.

This course is intended to supplement Course 5, and will deal primarily with the aromatic series. In the laboratory a few classical syntheses of important compounds will be studied. Parallel with the laboratory work, recitations and lectures will be held, having as subject matter the structural composition of representative members of various series of organic compounds, and the theoretical questions to which the study of these compounds give rise. Open only to students who have completed Course 5. Laboratory fee, \$4.

7. *Quantitative Analysis.*

B or C

Professor BARTLETT.

First Semester, 4 hrs.

A course in the laboratory arranged from standard text and reference books. Elementary gravimetric and volumetric methods. Open to students who have completed Course 4, with a rank of at least 75. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, \$4.

8a. *Quantitative Analysis (continued).*

C

Professor BARTLETT.

Second Semester, 4 hrs.

A continuation and advancement of Course 7 with more complex analyses and their applications. Open only to students who have completed Course 7. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, \$4.

8b. *Quantitative Analysis.*

B or C

Professor BARTLETT.

Second Semester, 4 hrs.

A course corresponding to Course 7 and open only to students who have completed Course 5 with a rank of at least 75. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, \$4.

9 and 10. *Physiological and Medical Chemistry.*

Professor BARTLETT.

First and Second Semesters, 3 hrs.

Physiological and Medical Chemistry. A course with laboratory, lecture and recitation work giving special attention to the carbohydrates and albumins, to toxicology and the applications of chemistry to medicine. First Semester, and until the recess in the Second Semester; open only to students in the second year of the Medical School.

12. *Historic and Economic Chemistry.*

C

(a) Mr. RICHARDSON, (b) Professor BARTLETT.

Second Semester, 2 hrs.

(a) Lectures and readings on the history of the development of chemistry.

(b) Lectures on the sources, manufacture, and uses of chemical materials.

(a) and (b) are elected as a single course open only to students who have completed Course 4.

13 and 14. *Organic Compounds.*

Dr. BOLSER.

First and Second Semesters, 3 hrs.

A course in the preparation of some of the more complex organic compounds and the theory of their structure.

Open only to graduate students.

[Not offered in 1903-1904.]

15 and 16. *Sanitary Chemistry.*

C

Professor BARTLETT.

First and Second Semesters, 4 hrs.

The Sanitary analysis of water, milk, food, drugs.

Given in the year 1903-1904. Open to graduates and undergraduates who have completed Course 8a.

Required for the Thayer School, Courses 2, 3, 4; preliminary to the study of Medicine, Courses 2, 3, 4, 5, 8b; Courses 9 and 10 are for students in the second year of the Medical School only; Course 12 is given in the year 1903-1904; Courses 13, 14, 15, 16 are for graduate students.

For students who have not presented chemistry for entrance, a Minor consists of 2, 3, 4, and either 5 or 7. A Major consists

of 2, 3, 4, and one of the following combinations: 5, 6, 7; or 5, 7, 8a; or 5, 6, 8b.

For students who have presented chemistry for entrance, a Minor consists of 3, 4, and any one of the following combinations: 5, 6; or 7, 8a; or 5, 7; or 5, 8b. A Major consists of 3, 4, 5, 6, 7, 8a. Course 12 may in some cases be combined with a four-hour course in meeting the requirements for a Major.

BIOLOGY

ZOÖLOGY AND BOTANY

The courses in Zoölogy and Botany are designed for three classes of students, namely: (*a*) for those who wish to know something of the elementary principles and aims of the science; (*b*) for those who intend to study medicine; and (*c*) for those who expect to teach the natural sciences, or who for any reason are interested in the subject and wish to give it special attention.

Courses 1, 1a, 2, 3, 4, 5, and 6 are elementary in character, and are intended for those who desire a comprehensive view of the subject. Those who intend to study medicine will find the following courses of especial value as a preparation for the study of human anatomy, physiology, and bacteriology: namely, Biology, 1, 1a, 2, 3, 4, 5, 7, 9, and 10. Courses 1, 1a, 2, and 10 will be useful to students of psychology.

While the above named courses have been modelled to meet the requirements of the general student and of those who have a medical career in view, the symmetry and continuity of the entire series of courses have been maintained in order to meet the requirements of those who expect to teach the natural sciences or to become professional biologists.

Biology 1 and 2 are continuous and dependent courses in Elementary Biology. They are designed for those students who desire some knowledge of the fundamental facts and principles of animal and plant life, and of the modern methods of solving biological problems.

Biology 1 should not be elected unless the student intends to take Biology 2. Biology 2 is open only to those who have

completed the required work in Biology 1. Biology 1, 1a, and 2 are prerequisites for all other courses in Zoölogy and Botany.

1. *Elementary Biology (Botany).*

A

Mr. LYMAN, and Messrs. LAMBERT and GRIGGS.

First Semester, 3 hrs.

An introductory course giving a general survey of the vegetable kingdom. The lectures treat of some of the fundamental principles of Biology common to both plants and animals, and give a comprehensive review of the physiology, morphology and reproduction of plants, special attention being paid to the lower plants, and to the relation of fungi and bacteria to fermentation, putrefaction and disease. The laboratory work consists largely of the microscopic examination of some of the principal representatives of the vegetable kingdom. (Coulter's *Plants*.) Laboratory fee, \$3.

1a. *The Principles of Biology.*

A

Professor PATTEN.

First Semester, 2 hrs.

A course of lectures on the structure and activities of plants and animals, with a discussion of the principal phenomena of nutrition, growth, reproduction, heredity, variations, distribution, natural selection and evolution. The course is designed especially for those who desire a brief statement of the principles and aims of the science, and as a preparation for Biology 1 and 2. It must be taken with, or before Biology 1. Sophomores who have taken Biology 1 and 2 in their Freshman year may elect Biology 1a after Biology 1 and 2.

2. *Elementary Biology (Zoölogy).*

A

Dr. GEROULD, and Messrs. LAMBERT and GRIGGS.

Second Semester, 3 hrs.

An introduction to the study of animal life. The structure and life histories of a series of typical animals are studied in the laboratory in order to gain an insight into the elementary principles of the science. The lectures treat of the differences between animals and plants, the evolution and interrelation of animal forms, the phenomena which lie at the basis of nutrition, growth, and heredity, and the inter-action which exists between animals and their environment. (T. J. Parker's *Practical Zoölogy*, Jordan and Kellogg's *Animal Life*.) Laboratory fee, \$3.

3. *Invertebrate Zoology.*

B

Dr. GEROULD.

First Semester, 3 hrs.

This is a course in the comparative anatomy, embryology and physiology of the invertebrates. Attention is given to the interrelation of the various phyla, to the maturation, fertilization, and cleavage of the ovum, the formation of germ layers, larval development and to the more important parasites of interest to the student of medicine. Several examples from each of the more prominent phyla are studied in the laboratory. (Shipley and McBride's *Elementary Zoology*, Hertwig's *Manual of Zoology*, translated by Kingsley.) Laboratory fee, \$3.

4. *Comparative Anatomy of Vertebrates.*

B

Professor PATTEN.

Second Semester, 3 hrs.

The outlines of the classification of vertebrates, the homologies and the histological structure of vertebrate organs, the theories of the structure of the vertebrate head, and of the derivation of the Chordata will be discussed. The object of the course is to illustrate the evolution of the vertebrate type of animals from the lowest fishes and related forms up to man, and to discuss some of the conditions that are coincident with, or determine, the progressive modification of various vertebrate organs. The course is intended for those especially interested in zoölogy, or for those who wish to lay a broad foundation for the study of human anatomy, physiology, or comparative psychology. (Wiedersheim's *Comparative Anatomy of Vertebrates*, Gray's *Anatomy*, and the embryological text-books of Minot, Hertwig-Mark, etc.) Laboratory fee, \$3.

5. *Cryptogamic Botany.*

B

Mr. LYMAN.

First Semester, 3 hrs.

This course treats of the classification, structure, activities and life histories of typical representatives of the lower orders of plants, attention being paid to those forms that are of pathogenic or economic interest, and to the making of various kinds of artificial cultures and culture media. Field excursions are made and the general methods of collection and preservation of cryptogams are studied. This course is designed for those who intend to study medicine, or to teach, or who desire a broad knowledge of the subject. Laboratory fee, \$3.

6. *Phanerogamic Botany.*

B

Mr. LYMAN.

Second Semester, 3 hrs.

A general course on the higher plants, continuing the work of Course 5, and completing the survey of the plant kingdom. It treats of the morphology and development of the flowering plants, embracing the main topics of their structure, functions and habits, together with their classification, distribution, adaptations and uses. Opportunity is given for the preparation of an herbarium illustrating some definite problem in oecology. A desirable course for those who wish to obtain a general knowledge of the higher plants. Laboratory fee, \$3.

7. *Cytology.*

C

Dr. GEROULD.

First Semester, 3 hrs.

This course treats of the structure and activities of animal and of plant cells. The structure of protoplasm, its physical and chemical properties, the theories of heredity, cell-division, and the effects of nutrition, stimulation, and exhaustion of cells are discussed. Laboratory fee, \$3.

9. *Vertebrate Embryology.*

C

Professor PATTEN.

First Semester, 4 hrs.

A study of the embryology of the frog, the chick, and a mammal. Open only to those who have done satisfactory work in Biology 1, 2, and 4. (Minot's *Human Embryology*, Hertwig's *Embryology of Vertebrates*, Marshall's *Vertebrate Embryology*.) Laboratory fee, \$3.

10. *Comparative Anatomy and Physiology of the
Nervous System and Sense Organs.*

C

Dr. GEROULD.

Second Semester, 3 hrs.

A course of lectures and laboratory work illustrating the structure and evolution of the nervous system and sense organs, with special reference to their physiology. A desirable course for students of medicine or psychology. Open to students who have taken Courses 1 and 2. Laboratory fee, \$3.

12. *Vegetable Histology and Physiology.*

C

Mr. LYMAN.

Second Semester, 3 hrs.

A study of the minute structure of the higher plants, and of the development of tissues and organs is combined with experiments

on the properties of protoplasm and its relation to external stimuli, nutrition, growth, etc. Considerable attention is paid to methods of histological technique, — staining, killing, fixing, embedding, sectioning, etc. This course must be preceded by Course 6 or its equivalent, and some knowledge of Physics and Chemistry is also desirable. Laboratory fee, \$3.

13 and 14. *Systematic Morphology of Plants.*

C

Mr. LYMAN.

First and Second Semesters, 3 hrs.

A field and laboratory course comprising the collection and preservation of material, the analysis of plants, together with assigned readings on the morphology and systematic arrangement of the various groups. Stress may be laid on either the higher or the lower plants. Students proposing to elect these courses must consult the instructor before the close of the preceding college year, in order that arrangements may be made for collecting necessary material for the course. Laboratory fee, \$3.

16. *Zoölogical Seminar.*

C

Professor PATTEN.

Second Semester, 2 hrs.

A discussion of special problems in Biology and a review of the current literature. Designed primarily for those students who intend to do graduate work in Biology. A reading knowledge of French and German is essential.

17 and 18. *Research work.*

Professor PATTEN.

First and Second Semesters.

Research courses in animal morphology leading to advanced degrees.

The requirement for a Minor in Biology is Courses 1, 1a, and 2, and any one of the following combinations: Courses 3-4, 3-5, 3-6, 4-5, or 5-6.

The requirement for a Major is any two of Courses 7, 9, 10, 12, 13, 14, 16, in addition to the requirement for a Minor.

HUMAN ANATOMY AND PHYSIOLOGY

(MEDICAL SCHOOL COURSES)

HISTOLOGY

1 and 2. *Human Histology.*

B

Professor KINGSFORD.

Second Semester, 4 hrs.

Laboratory work with recitations during the last few weeks of the course. The elementary tissues are first studied, then the various organs, including special study of the brain and cord. Each student may prepare and retain sections.

In 1904-1905 a course in Histology, followed by Bacteriology, will be given throughout the year, three hours per week.

HUMAN ANATOMY

1 and 2. *Human Anatomy.*

C

Professor FROST.

First and Second Semesters, 3 hrs.

Osteology, arthrology and a preliminary study of the viscera. A course of recitations and demonstrations. Preparations from the Anatomical Museum are given out for study. Opportunity is offered to follow the dissections of the human body made by the medical students of the second and third years. The written examinations covering the work in osteology and arthrology, if satisfactory, are final. (Gray's *Anatomy*, last edition.)

PHYSIOLOGY

1. *Elementary.*

B

Professor W. T. SMITH.

First Semester, 3 hrs.

A course of lectures and quizzes upon the essential facts of Physiology, bringing them into relation as far as possible with future work.

2. *Laboratory Course.*

C

Dr. FRANZ.

Second Semester, 3 hrs.

A laboratory course upon the physiology of nerve and muscle, and of the blood and circulation. Each student will do the classic experiments in these subjects for himself. Text-books: Kirkes' (Blakiston's edition). For reference, American *Text-Book of Physiology*, Schaeffer, Waller, Foster.

The Physiological Laboratory has recently been equipped with the latest apparatus. A sufficient number of complete sets has been provided to furnish one to every two students.

These include kymograph, induction coil and stimulating apparatus, tambours, apparatus to illustrate the circulation, etc.

MEDICAL PHYSICS

1. *Laboratory Course.*

A

Dr. FRANZ.

First Semester, 2 hrs.

A laboratory course with occasional informal lectures and recitations to correlate the work done in the laboratory. The topics included will be those essential to a proper understanding of physiology and allied subjects. (*Daniell's Physics for Students of Medicine.*)

The requirement for a Minor in Anatomy and Physiology is Biology 1, 1a, 2, 4, together with Medical Physics 1 and Physiology 1; for a Major, Human Anatomy 1, 2 and Physiology 2 in addition to the requirement for a Minor.

HYGIENE1. *Hygiene.*

Professor KINGSFORD.

First Semester, 1 hr.

A course of lectures on personal hygiene to the Freshman class.

GEOLOGY

2. *Dynamical and Structural Geology.*

A

Dr. C. H. RICHARDSON.

Second Semester, 3 hrs.

This course will embrace a general survey of the whole field of geology, save the organic, and is planned to serve as an introduc-

tion to all work in the department. Some of the principal topics discussed are as follows: Nebular and meteoric hypotheses, the origin and distribution of soils, chemical elements most abundant in rocks, chemical and physical characteristics, formation and distribution of glaciers, the theories of volcanoes, classification of igneous and sedimentary rocks, mountain building and continental deformation. (Le Conte's *Elements of Geology*.)

3. *Organic Geology.*

B

Professor HITCHCOCK.

First Semester, 3 hrs.

This commences with a study of the sea-shore, marine deposits and the organisms specially concerned in the formation of pelagic ooze, limestones, coral reefs and islands. The topic of Historic Geology follows, discussing as fully as possible the evolution of the continent, the life and the origin of the present distribution of animals and plants. Lectures and recitations, with references to standard treatises.

Open only to those who have completed Course 2. A knowledge of Botany and Zoölogy is important for those who take Courses 3 and 5.

5. *Surface Geology.*

C

Professor HITCHCOCK.

First Semester, 3 hrs.

A course of lectures and field exercises; for the latter, the facilities are remarkably favorable in the vicinity of Hanover. Accounts are given first of actual glaciers, and then studies are made of the phenomena, proving an age of ice formerly existing over more than half of the continent. The classification of the various glacial deposits furnishes data for determining the exact date of the introduction of man.

Open only to those who have completed Course 2.

6. *Local Geology.*

C

Professor HITCHCOCK.

Second Semester, 3 hrs.

Special study of the geology of Northern New England by readings, discussions, and field work. The amount of time required will be equivalent to three hours per week.

Open only to those who have taken all the preceding courses in Geology and Courses 5 and 6 in Mineralogy.

The requirement for a Minor in Geology is Geology 2, 3, 5, together with Mineralogy 1; for a Major, Geology 6, and Mineralogy 6, in addition to the requirement for a Minor.

Graduate students and candidates for the degree of Ph.D. will engage in field-work in areas specially assigned, and apply the principles of Petrography to specimens of their own collection. They will study the Reports of the several States, the larger manuals of Geikie and Dana, and special treatises, according to the particular subject assigned.

MINERALOGY

1. *Chemical Mineralogy.*

A

Dr. C. H. RICHARDSON.

First Semester, 3 hrs.

A systematic course in the detection of economic minerals by blow-pipe reactions and confirmatory chemical tests. The origin, differences, economic uses, and annual output of the various ores will be emphasized. Some attention will also be given to the essential and accessory constituents of building materials. (Moses and Parson's *Mineralogy and Blowpipe Analysis*.) Open only to those who have taken one course in Chemistry and continue Qualitative Analysis. Laboratory fee, \$3.

2. *Chemical Mineralogy and Lithology.*

A

Dr. RICHARDSON.

Second Semester, 3 hrs.

An advanced course in the study of rock-forming silicates, ores of the precious metals, various gems, and the different varieties of coal. Field work will be the method of instruction after the Easter recess. At various copper mines the student will become acquainted with methods of mining, hoisting, transportation, selection, and smelting of ores. The course enables the student to recognize at sight both the common and economic minerals. (Dana's *Manual of Mineralogy*, Large edition, for Reference.) Open only to those who have taken Course 1. Laboratory fee, \$3.

3. *Economic Mineralogy.*

B

Dr. RICHARDSON.

First Semester, 3 hrs.

The design of this course is to illustrate the modes of occurrence in nature of minerals and ores which have economic importance, to show the commercial advantages of the localities in which they are found, the processes used in their extraction and treatment, their application to arts and industries, and the causes of loss and failure in mining and quarrying. Ores and products of the precious metals, ores and products of the useful metals, glass, sands, and the ores of the alkaline earths and alkalis will be considered.

4. *Economic Mineralogy.*

B

Dr. RICHARDSON.

Second Semester, 3 hrs.

This is a continuation of the principles involved in Course 3, but may be taken independently of it. Building stones (the quarry products), carbon minerals, including coals, petroleum, natural gas, etc., will be studied.

The above economic courses are free electives.

5. *Physical Mineralogy.*

C

Dr. RICHARDSON.

First Semester, 3 hrs.

This course includes both text-book and laboratory work. As a text-book William's *Elements of Crystallography* will be used. In laboratory work the student will prove the methods of crystal growth, investigate the laws of combination, determine the geometrical form of crystal models, and identify morphologically both natural and artificial compounds. Laboratory fee, \$2.

6. *Optical Mineralogy.*

C

Dr. RICHARDSON.

Second Semester, 3 hrs.

This course consists of the identification of rock-forming minerals by their optical properties and the detection of injurious microlites in building material. The student may prepare microscopic thin sections and apply to them the principles of petrography. Laboratory fee, \$3.

Courses 5 and 6 are open only to those who have taken one year each of Physics and Mineralogy.

7. *Applied Mineralogy and Lithology.*

Dr. RICHARDSON.

First Semester.

This course is designed especially for engineers and architects, and deals only with economic material. Special emphasis will be laid upon

the methods of identification of the most useful minerals and building stones. The resistance of marbles, granites, sandstones, etc., to abrasion and compression, and the detection of injurious accessory constituents will be considered. (Moses and Parson's *Mineralogy and Blowpipe Analysis*.) Twenty-seven exercises. Laboratory fee, \$2.

Open only to students in the Thayer School.

HISTORY

The courses in History are intended for two classes of students. (1) To those desiring an outline of historical development from ancient to modern times, are offered Courses 1-5. Courses 1 and 2, required for all later courses, give such training as is essential for the use of ordinary historical material. Courses 3-5 call for more extensive and critical reading, and the writing of reports or essays to combine results and put into more definite practice the training previously given. (2) For students having some especial interest in the particular period covered, or desiring training to teach History, Courses 6, 7, 8, and 10 are designed. These courses are devoted to a more critical study of selected topics in the period already covered in outline, and to the presentation of results in the form of reports or theses.

1 and 2. *Mediæval and Modern European History*.

A

Professors FOSTER and FAY, and Mr. MITCHELL.

First and second Semesters, 3 hrs.

Courses numbered 1 and 2 are treated as a continuous year's course in European History from the Teutonic Migrations to the French Revolution (375-1789). A detailed outline of the lectures, the map and written work, and the recitations on lectures, textbooks, and collateral reading will be found in the Syllabus for History 1 and 2. In addition to the recitations, the work will be tested by conferences with the instructors and by short written quizzes at the lecture or recitation. A minimum amount of collateral reading is required of all, but it is hoped that the student's interest will lead him into independent reading beyond any requirements.

Students taking Course 1 must take Course 2 the next Semester. Courses 1 and 2 are required for all subsequent courses in History, and for all courses in Modern History, Economics, Political Science, and for English 15.

3. *History of England to the Sixteenth Century.*

B or C

Professor FAY.

First Semester, 3 hrs.

This course will consist primarily of the political history of the English nation, with such reference as is necessary to constitutional, economic, and intellectual development. Lectures, recitations, and reports. Required for admission to Course 4.

4. *History of England and the British Empire from the Sixteenth Century.*

B or C

Professor FAY.

Second Semester, 3 hrs.

This is a continuation of Course 3, and will include, in addition to the history of Great Britain, the development of the British Empire and the history of its colonies and dependencies. Open to those who have had Course 3. Lectures, recitations, and reports.

5. *American Colonial History to 1783.*

B or C

Professor FOSTER.

First Semester, 3 hrs.

This course is intended to trace the beginnings of the American Nation rather than the details of the history of the individual colonies. Emphasis is therefore laid on the European inheritance brought to this country by the colonists, their development of American institutions in the new environment, the expansion of population, the struggle between French and English for North America, the underlying causes of the Revolution, the growth of independence and union. Students who have not had a good course in English History in the secondary school are advised to precede this course by Courses 3 and 4. Lectures, readings, recitations, and reports.

6. *Era of Renaissance and Reformation.*

B or C

Professor FOSTER.

Second Semester, 3 hrs.

This course traces the transformation of Mediæval into Modern Europe (1300-1600), from the age of Dante to that of Shakespeare and Calvin, and includes such topics as the following: The significant characteristics of the Middle Ages contrasted with those of modern times; rise of individual, city, national life; dismemberment of empire and papacy; early attempts at reform; the Renaissance; the Protestant Revolution; the Roman Catholic Reaction; the formation

and organization of modern States. This course is more advanced than the earlier narrative courses (1-5), is intended for those especially interested in the period or desiring especial training in the study or teaching of history, and is open only to students who have attained an average rank of 75 in Courses 1 and 2. Lectures, quizzes, discussions of general and assigned topics, and the reading of special reports.

The portion dealing with the Renaissance will be omitted in 1903-1904, being covered in Course 12.

Courses 6 and 7-8 are given in alternate years.

7 and 8. *The Puritan State.*

C

Professor FOSTER.

First and Second Semesters, 2 hrs.

This is a study, based mainly on contemporary documents, of the Puritan experiment in government (1) in Geneva, under Calvin's influence, 1536-1564; (2) in England in the sixteenth and seventeenth centuries; and (3) in Massachusetts Bay, 1630-1691. It is an advanced course intended for those who wish to do special work in History, who can read French or German, and who have taken History 1-6, or a satisfactory equivalent. Lectures, theses, and discussions.

[Not offered in 1903-1904.]

10. *Political Development of Europe from 1600 to 1789.* B or C

Professor FAY.

Second Semester, 3 hrs.

This course will include a study of the establishment of the absolute monarchy in France by Richelieu and Louis XIV., and of its failure and collapse in the eighteenth century; the causes of the decline of Dutch commercial and maritime supremacy; and the rise of the Prussian Kingdom and the Russian Empire to their positions as great European Powers. Lectures, quizzes on reading, and written reports.

This course is open only to students who have passed satisfactorily in Courses 1 and 2. A knowledge of French or German is desirable. [Not offered in 1903-1904.]

12. *Italian Renaissance.*

B or C

Second Semester, 3 hrs.

This is a co-operative lecture course given by instructors in the fields of History, Economics, Archæology and Art, Ancient and Modern Languages, and the Natural Sciences. It is designed to show the

origin and nature of the Renaissance movement in Italy; the wide range and close inter-relation of its varied manifestations; and its far-reaching results in the different fields of knowledge and human activity.

Lectures, collateral reading, frequent written quizzes or reports, and a thesis.

This course is open only to students who have passed History 1 and 2 with a grade of at least 60, and who can use books in at least one language besides English.

MODERN HISTORY

History 1 and 2 are prerequisites for all courses in Modern History.

1. *The Political History of Europe from the French Revolution to the Treaty of Berlin (1789-1878).* B or C

Professor J. H. SMITH.

First Semester, 3 hrs.

The course opens with lectures on the characteristics of the chief European peoples, which help explain their political history, on the state of things in the principal countries just before the outbreak of the French Revolution, and on the beginnings of that movement. From this point the core of the work is the mastery of a brief text-book, regarded as a full syllabus, and supplemented with formal lectures, comments, required and recommended readings, essays, discussions and conferences. Due attention is given to physical and political geography. While no attempt is made to teach a philosophy of history, the connection between effects and causes is dwelt upon. The chief stress is laid upon the broad movements of the period, and the vital process by which the Europe of a century and a quarter ago has become the Europe of recent times.

2. *Political History of the United States (1783-1877).* B or C

Professor J. H. SMITH.

Second Semester, 3 hrs.

The Political History of the United States from the close of the Revolutionary War to the close of the Reconstruction period (1783 to

1877). This course is conducted in the same general manner as the one just described, except that still more attention is paid to collateral reading and original sources. A special attempt is made to introduce students to the leading men of our political history.

A Minor in Modern History is obtained by combining History 1 and 2 with Courses 1 and 2 in Modern History. A Major is obtained by combining any four courses in History with Courses 1 and 2 in Modern History together with additional work assigned by the instructor.

THE FAR EAST

1. *East Asiatic Civilization.*

B or C

Dr. ASAKAWA.

First Semester, 3 hrs.

This is an analytical study of different phases of the civilization of the Chinese, Koreans, and Japanese. Effort will be made to seek underlying principles of the civilization, to interpret its important phenomena from the sociological standpoint, and to place emphasis upon such ideas and institutions as are considered to be controlling forces of the present and future life of the nations. Current errors concerning the subject will be critically examined, and its essential points will as far as possible be constructed by discussion in the class. Personal conference is required before electing this course.

2. *The Modern East Asia.*

B or C

Dr. ASAKAWA.

Second Semester, 3 hrs.

A study of the diplomatic, commercial, and moral relations of the East Asiatic peoples with the European and American nations, as well as of the existing conditions of those peoples. The subject naturally divides itself into three stages: the intercourse between China and Europe during the Middle Ages; the contact of China and Japan with the colonizing nations of Europe from the sixteenth to the eighteenth century; and the new era of international activity opened by the Chinese War of 1841-2. Of these three stages, the first two will be briefly treated, and, of the third, the greater portion of the time will be devoted to the latest developments. The method

of instruction will be similar to that of Course 1, with less discussion and more reading. Explanatory view of the more important topics will be given in lectures, and some of the numerous subsidiary topics will be covered by written reports. Open to those who have had Course 1.

4. *Advanced Studies in Civilization.*

C

Dr. ASAKAWA.

Second Semester, 3 hrs.

A deeper and more extensive study of the East Asiatic culture than Course 1, which is required as preparation for this course. Some of the topics treated will be: industries; social organization; political doctrines and institutions, and law; religion, philosophy, and learning; fine arts; mental outfit of the individual and his habitual views of life, etc. Emphasis will be laid upon the evolution and mutual relation of the phases of the civilization, which are regarded essentially as organs and expressions of the life of the nations under discussion. Translations of the sources and opinions of writers will be freely used and criticized, and the work will be conducted informally as in a seminar.

ECONOMICS

History 1 and 2 are required for all courses in Economics. Economics 1 and 2 constitute a year's course and no credit will be given for the work of a single Semester.

Economics 1 and 2 and either 3 or 4 are required for all other courses in Economics. Courses 9 and 10 are open only to First Year Tuck men. Courses 13 and 14 are required of all students for the completion of a Major in Economics.

1 and 2. *Elementary Economics.*

A

Professor WICKER and Mr. HANEY.

First and Second Semesters, 2 hrs.

In these two courses, which together form a one year course, the attempt will be made to give the student the currently accepted scientific analysis of modern industrial society. It will seek to accomplish a threefold purpose: to teach fundamental principles in such a way that they may be applied to the duties of enlightened citizenship; to

open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to offer to those intending to adopt business as a profession, such general rules and principles as are contributed to business by the science of Economics.

While the course concerns itself primarily with economic theory, — with the most general principles of consumption, production, exchange, and distribution, — the theory itself will be developed from and illustrated by a study of actual economic processes and conditions. Thus due attention will be paid to the problems of money and banking, the tariff, monopoly, labor, etc., in such a general way that later intensive study of these problems may be based upon the foundations thus laid. (Bullock's *Introduction to the Theory of Economics*.)

3. *Economic History of the Nineteenth Century.*

A

Professor DIXON and Mr. HANEY.

First Semester, 3 hrs.

Sketch of the development of English industry and commerce to the 18th century, followed by a more careful study of the Industrial Revolution. With this as a background, the development of the United States, both industrial and commercial, will be treated in the form of lectures, the relation of economic to social and political factors being constantly noted. The following are some of the topics considered: the land policy of the government, the movement of population, and the development of agricultural resources both North and South, including the economic effects of slavery; the origin and development of the extractive and manufacturing industries; transportation development, including turnpikes, canals, and railways; the history of the tariff and our present commercial policy, involving a consideration of the policy of European countries. The economic development of countries other than the United States will be treated by means of a text-book and assigned readings. (Gibbins' *Economic and Industrial Progress of the Century*.)

4. *Elements of Commercial Geography.*

A

Dr. PERSON.

Second Semester, 3 hrs.

This course aims first to bring out the general principles of the relationship between man's environment and his industrial life, and then to apply these principles by taking up a study of the various countries as producers and sellers of goods and as markets. While

all important regions are considered in an elementary way, a more detailed study is given to the older industrial countries. Among the facts considered are the following: physical conditions, geology, soils, rivers, climate; the nature and distribution of extractive and of manufacturing industries; imports and exports; industrial aptitudes; business methods; and national peculiarities that determine the particular class of goods demanded.

5. *History and Theory of Money, Credit, and Banking.* B

Mr. VAN DEUSEN.

First Semester, 3 hrs.

An examination of the functions and nature of money; systems and coinage of metallic currency; a review of the positions of the Bi-metallists and the Quantity Theorists; credit, credit documents; paper money, convertible and inconvertible notes; banks and banking; modern currency problems; foreign banking systems; history of American currency and banking. Lectures, discussions and reports.

6. *Public Finance.*

B or C

Mr. VAN DEUSEN.

Second Semester, 3 hrs.

A course devoted to a general study of the history, principles, and practice of public finance, and arranged substantially as follows: (a) Public Revenues, their classification, and the nature and characteristics of the different kinds. The subject of Taxation will receive special attention, both in a consideration of its nature, principles, sources, limits, incidence, and influence; and in the study of its particular forms, such as the general property tax, income, inheritance, and business taxes. (b) Public Expenditures, their nature, classification, and relation to public welfare. (c) The Budget, its preparation, form, and composition; the collection of revenues; custody of funds and organization of the Treasury Department; administration of expenditure. (d) Public Credit, (1) when employed; (2) how employed; contraction of public debts, their classification, flotation, conversion, funding, and redemption. The work will be conducted much after the seminar plan, with frequent reports on the financial history, legislation, and practices of leading states, with especial reference to the conditions peculiar to the United States. Daniel's *Public Finance* as a text; liberal reference to Adams, Seligman, and others.

7. *Transportation.*

B

Professor DIXON.

First Semester, 3 hrs.

Railroads. (a) The railroad problem of the United States, including theories of rates, combination and pooling, consolidation, community of ownership, and government ownership or control, involving a careful consideration of the work of the Interstate Commerce Commission and of State Commissions. (b) A comparative study of the railroad systems of other countries, especially England, Germany, France, Canada, and the Australian Commonwealth with a consideration of the economic significance of the world's great railway systems.

Transportation other than Railroads. (a) Lake, river, and canal transportation in the United States and other countries. (b) Ocean transportation with special reference to its relations with the transportation systems of various countries. (c) Interurban railways and their growing competitive power, telegraphs, telephones, and cables. (Johnson's *American Railway Transportation*.)

[In 1904-1905 and thereafter this course will be offered in the second Semester as Course 8.]

8. *Corporations.*

B or C

Professor DIXON.

Second Semester, 3 hrs.

(a) History of business corporations with a careful analysis of the recent forms of industrial combination. (b) Elements of the law of corporations, with the view of making clear their present economic position and limitations. (c) Corporation finance with special reference to methods of organization and transformation. (d) Corporations and the State, treating fully of public policy toward corporations including taxation. Although open to all who have had the proper preparation, this course will be found of special value to students preparing for law.

[In 1904-1905 and thereafter this course will be offered in the first Semester as Course 7.]

9. *Industries of the United States: Extractive.*

B

Dr. PERSON.

First Semester, 3 hrs.

A detailed investigation of the industrial life of the United States. In this course the extractive as distinguished from the manufacturing industries are studied. The purpose being to bring out facts that

will be of value to the practical business man, the technical aspect of these industries is emphasized. First, a preliminary study is made of the most fundamental facts in the industrial life of the United States, — facts of geography, topography, geology, climate, race disposition, and the extent and distribution of resources. Then in turn the extractive industries are taken up, the history of each being traced for the purpose of showing how its present condition has been determined by the development of resources, technique, and markets. Finally an estimate is made of the possible future development of these industries.

[Open only to First Year Tuck men.]

10. *Industries of the United States : Manufacturing.*

B

Dr. PERSON.

Second Semester, 3 hrs.

This is a continuation of Course 9, attention being turned to the most important manufacturing industries. It considers the technical and other conditions that have determined the development of the industries studied; it studies the costs and processes in the stages of manufacture from the raw material to the completed product, and investigates the times, places and opportunities for the sale of the manufactured product.

Courses 9 and 10 will include a study of actual products in the Commercial Museum.

[Open only to First Year Tuck men.]

11. *Labor.*

B or C

Professor WICKER.

First Semester, 3 hrs.

A preliminary review of the economic theory of labor and wages, followed by a concrete, practical study of the present status of labor in the chief industrial nations. Among the more important topics to be treated are forms of remuneration, labor unions, strikes and boycotts, arbitration and conciliation, labor law in the United States and England. Lectures and recitations.

12. *Studies in Statistics.*

C

Professor WICKER.

Second Semester, 2 hrs.

Statistical methods and results will be studied through the investigation of various phases of economic development. Industrial statistics will receive special attention. Some attention will be given

to the sources and reliability of statistical data and to the methods of distinguishing true and false inferences.

13. *The Development of Economic Thought.*

C

Professor WICKER.

First Semester, 3 hrs.

A survey of the history of economic theory as related to the history of economic development. It is the aim of the course to enforce and amplify the student's grasp of economic principles by a study of the development of thought in the economic field. Lectures, recitations, and reports.

14. *Present Day Economic Theory.*

C

Professor WICKER.

Second Semester, 3 hrs.

An advanced course in Economics, in which mooted points of theory will be critically studied in the works of such economists as Marshall, Böhm-Bawerk, John B. Clark, Patten, and others. This course is designed as a natural complement to the historical study in the first Semester, as outlined in Course 13. Reports and group conferences.

15 and 16. *Economic Reading.*

C

Professors DIXON and WICKER and Dr PERSON.

First and Second Semesters, 1 hr.

Readings in the French and German economists with discussions. Open only by special permission to students having a good reading knowledge of French and German.

POLITICAL SCIENCE

History 1 and 2 are prerequisites for all courses in Political Science.

2. *American Political Institutions.*

A

Dr BOWMAN.

Second Semester, 3 hrs.

A concise survey of the origin, development, and practical working of American political institutions. This course will include an his-

torical review of the formation of the Federal Constitution and a study of that Constitution as a body of living principles; the working relations of the Federal and State governments; the nature of the American State and the working of its government, and a brief examination of different forms of local and municipal governments. The general aim will be not only to prepare students by adequate information for the proper discharge of the duties of citizenship but also to stimulate in them a thoughtful patriotism and quicken their sense of civic responsibility. Recitations and lectures. This course is a prerequisite for all other courses in Political Science.

3. *American Constitutional Law.*

B

Professor COLBY.

First Semester, 2 hrs.

This course is designed to give students a knowledge of the general principles of the Constitutional Law of the United States, both federal and statal. Particular attention is given to the origin and development of the written constitution in America, to the formation of the early State constitutions, and the various sources of the Federal Constitution and to its text. Recitations and lectures. (Cooley's *Principles of Constitutional Law*.) Four hours a week for the first nine weeks.

4. *American Constitutional Law.*

C

Professor COLBY.

Second Semester, 1½ hrs.

(Advanced course, open only to students who have taken Course 3.) This course is intended for students who expect to enter the profession of law, and involves a critical examination of such parts of the Constitution as are not studied in Course 3. Recitations and lectures, supplemented by examination of leading cases. (Cooley's *Principles of Constitutional Law* and Boyd's *Cases on Constitutional Law*.) Three hours a week for the last nine weeks.

5. *Elementary Law.*

C

Professor COLBY and Dr. BOWMAN.

First Semester, 3 hrs.

Outlines of Jurisprudence. This course is intended for students who expect to enter the profession of law, and is planned to give a general view of the whole field of the law and an introduction to its terminology and its fundamental ideas. It consists of (a) an historical survey of the Roman Law and of the English Common Law, (b) a critical examination of the fundamental ideas in both these systems

of law, and (c) a study of Robinson's *Elements of American Jurisprudence*. Recitations and lectures.

6. *Elementary Law.*

C

Professor COLBY and Dr. BOWMAN.

Second Semester, 3 hrs.

A continuation of Course 5, including the remaining chapters of Robinson's *Elements of American Jurisprudence* and Wambaugh's *Study of Cases*. Recitations and lectures.

Courses 5 and 6 are directly preparatory for the Law School. They will afford any student pursuing them with serious purpose opportunity to so qualify himself by knowledge of legal ideas and terms, the main facts of legal history, and the method of legal reasoning, for the work of the Law School, that he may profit immediately from its courses of lectures and its study of cases. Any student electing Course 5 will be expected to elect Course 6.

8. *International Law.*

B

Professor COLBY.

Second Semester, 2 hrs.

This course is historical and explanatory of present international relations. It treats of the origin and development of the rules that generally govern the intercourse of modern civilized states, and their recent modifications by treaty. Recitations and lectures. Four hours a week for the last nine weeks.

10. *Comparative Politics.*

C

Second Semester, 2 hrs.

A study of The State, its nature and origin, form, functions, and ends with a critical comparison of the present constitutions and the actual working of the governments of England, France, Germany, and the United States. (Wilson's *The State*; Lowell's *Governments and Political Parties of Continental Europe*.)

For further courses in Political Science, see Tuck School.

A Minor in Political Science is obtained by combining History 1, 2, and Political Science 2 with two courses in Political Science graded B.

A Major may be obtained by adding six hours graded C to the requirements for a Minor.

SOCIOLOGY

1. *Anthropology and Ethnology.*

B

Professor WELLS.

First Semester, 3 hrs.

This is an introductory course and should be taken by those who propose to take subsequent courses in Sociology. It is a study of man as the physical unit of society. It considers man's place in nature and the races and varieties of mankind. The method of treatment is both historical and descriptive. Each student is required to provide himself with a good atlas and to make constant use of the library for notes and reports. Lectures and recitations.

2. *Anthropological Geography.*

B

Professor WELLS.

Second Semester, 3 hrs.

This considers man in relation to his physical environment, as determining his dispersal over the face of the earth, his mode of life, and the density of population. It traces the bearings of the natural surroundings upon man's physical and mental characteristics, and follows this fundamental and necessary adjustment through the history of the family and the State and in the evolution of the forms of economic life.

Open only to those who have taken Course 1.

3. *Social Statistics.*

C

Professor WELLS.

First Semester, 3 hrs.

This course begins with a study of Demography or the social groups given by Statistics. It considers the classification of the population in modern society due to physical or social causes. It then inquires into the results of Vital Statistics, such as the mortality from different diseases, birth and marriage rates under varying climatic and social conditions. Finally, the above data are brought into connection with Crime, Pauperism, and Social Reform. It is a study of the biological side of social life.

4. *Constructive Sociology.*

C

Professor WELLS.

Second Semester, 3 hrs.

This is an attempt to formulate the Laws of social evolution and social organization. It is an analysis of phenomena that are regarded as at once physical and mental, but whose ultimate explanation must be in terms of Social Psychology. The end constantly in view is a true interpretation of social facts in the concrete terms of science.

Open only to those who have received the previous consent of the instructor.

For further courses in Sociology, see Tuck School.

A Minor in Sociology is obtained by taking all four courses.

A Major is obtained by combining Biology 2 and 4 with all four courses in Sociology; or by combining History 1 and Economics 1 and 2 together with all four courses in Sociology.

PHILOSOPHY

1. *Psychology.*

A

Professor HORNE and Mr. LEWIS.

First Semester, 3 hrs.

An elementary course. Outlines of the science. Description and explanation of the phenomena of the mental life. Recitations and readings. (James's *Psychology*, *Briefer Course*.)

2. *Logic.*

A

Professor HORNE.

Second Semester, 3 hrs.

An introductory course. A study of the outlines of deductive and inductive reasoning with especial reference to fallacies, argumentation, the nature of thought, and the logic of certainty and probability. Recitations and readings. (Creighton's *Introductory Logic*, and Hibben's *Inductive Logic*.)

Philosophy 1 and 2 are open to Sophomores after approval by the instructor, and to Juniors and Seniors.

3. *Advanced Logic.*

B

Professor HORNE.

First Semester, 3 hrs.

The Science of Thought. This course considers not the conditions under which valid thinking is possible, but the nature of

thinking itself. It is the purpose of the courses in Logic to consider the place of thought in reality. Recitations, readings, and a thesis. (Everett's *Science of Thought*.)

4. *Advanced Psychology.*

B

Professor HORNE.

Second Semester, 3 hrs.

This course is a natural continuation of Philosophy 1 which it presupposes. Special attention will be paid to the feelings and the will. It is the purpose of the courses in Psychology to acquaint college men with the essential elements of their own conscious life and with the general constituents of human nature. Recitations, readings, and a thesis. (Höfding's *Outlines of Psychology*.)

Students of psychology will find the following courses in other departments of interest and value to them, viz., Biology 1, 12, 2, 10, and Sociology 4.

5. *History of Philosophy.*

A

Professor CAMPBELL.

First Semester, 2 hrs.

Ancient Period. A study of the progressive steps in constructive thought from the earliest times to the birth of accredited Science and Philosophy at the close of the Socratic era. The History of Schools of thinking is treated in its concrete relation to national events, and involves an outline of the Philosophy of History. Lectures, recitations, and readings.

6. *Modern Philosophy.*

B

Professor CAMPBELL.

Second Semester, 2 hrs.

History of the national developments of philosophic thinking which have followed the Reformation, in Germany, Italy, France, Great Britain, and America; rise of great personal representatives of Modern Thought; also tendencies and Schools of Philosophy. This course may be taken without Course 5.

7. *Historical and Theoretical Ethics.*

A

Professor CAMPBELL.

First Semester, 2 hrs.

It is the purpose of Ethics to establish the common foundation of the Moral, Social, and Political Sciences. The Historical exhibits the progressive theories until the founding of Modern Ethics. The Theoretical is an exposition of the principles of man's moral nature,

and of the laws of its development in terms of environing conditions. Lectures, discussions, and readings.

The importance of a correct knowledge of the Moral Life will commend itself. It is the intention so to arrange the schedule of studies that every undergraduate may have opportunity to elect at least one two-hour course in Ethics. Course 8 may be taken before Course 7.

8. *Practical and Systematic Ethics.*

B

Professor CAMPBELL.

Second Semester, 2 hrs.

Man as an ethical unit in practical affairs. A study of his mental equipment. Conscience and Will as related to responsibility. Classification of duties as Personal, Social, Civil, and Theistic. Specific facts of Personal Ethics. A study of Justice in the social medium. The law of veracity in business life. Morality in its relation to custom, fine art and religion. Lectures, recitations, and readings.

9. *Civil Ethics.*

C

Professor CAMPBELL.

First Semester, 2 hrs.

A study of the moral relations of man as a civil unit. Recognition of Rights, Penalties and Laws. Duties under free government. Problems of Suffrage and of Temperance Legislation. Rights of Labor and of Capital. Civil Law and relation of ethical science to courts of equity and to civil processes generally. Lectures, recitations, readings, and thesis.

10. *Early Greek Philosophy.*

C

Professor CAMPBELL.

Second Semester, 2 hrs.

A study in the original Greek of the teachings (extant) of the Pre-Socratic philosophers. Translations and discussions. (Fairbanks's *First Philosophers of Greece*.)

Open only to Seniors who are acquainted with the Greek language. A study of the later Greek philosophy is given under Greek 7.

11. *Æsthetics.*

B

Professor CAMPBELL.

First Semester, 2 hrs.

Philosophy of the Fine Arts. Historical development of Architecture, Sculpture, Painting, Music, and Poetry. Recitations and lectures with photographic and stereopticon illustrations. Students

choose special topics for theses to be presented to the class. (Raymond, *Genesis of Art-Form*.)

For courses in Greek and Roman Architecture, Sculpture, and Painting, see Archæology 1-6. For a course in Literary Art, see English 19; in Musical Theory, Music 3 and 4.

12. *Philosophy of Religion*.

C

Professor CAMPBELL.

Second Semester, 2 hrs.

The unitary in ethnic religions; the Greek Pantheon as a system of Ethics; validation of theistic ideas; rational development of the spiritual life; sacred books; claims and dominant ideas of Christianity. Among the references are: Tiele's *Science of Religion*; Campbell's *Religion in Greek Literature*; Kellogg's *Genesis of Religion*; Harris's *Philosophical Basis of Theism*; Caird's *Philosophy of Religion*; Caldecott's *Philosophy of Religion*; Fairbairn's *Philosophy of Religion and of History*; Wright's *Scientific Aspects of Christian Evidences*,—the last used as a text-book. This course is intended quite as much for all who are seeking a rational basis for religious opinions as for those who have in mind the ministerial work. Recitations, lectures, synopses of critical readings, discussions.

13. *Introduction to Philosophy*.

C

Professor HORNE.

First Semester, 3 hrs.

A general survey of the field of Philosophy, with especial reference to the definition of its problem, its spirit, its method, and its relation to the various sciences; the doctrine of nature and of mind, of knowledge, and of being; the reconciliation of mechanism and teleology. Recitations, readings, and a thesis. (Paulsen's *Introduction to Philosophy*.) Open only to Seniors.

14. *Metaphysics*.

C

Professor HORNE.

Second Semester, 3 hrs.

The fundamental problems of Theoretical Philosophy. The conception of Reality, the Idea of God, the relations between the individual self and the world. It is the purpose of this course to enable men to frame for themselves a personal philosophy of life. Recitations, readings, and a thesis. (Royce, *The World and the Individual*.) Open only to Seniors.

15 and 16. *Applied Psychology.*

C

Professor HORNE.

First and Second Semester, 1 hr.

These courses are described under Education 3 and 4. Open to Seniors and Graduates.

17 and 18. *Philosophy of History.*

Professor CAMPBELL.

First and Second Semesters.

Origin and development of Civilization. Critical historical studies accompanied by lectures and recitations. A good knowledge of the German language is requisite. Ancient period, first Semester, Modern period, second Semester.

19. *Philosophy of Ethics.*

Professor CAMPBELL.

First Semester.

Study and discussion of Kant's *Kritik der praktischen Vernunft*, or of Green's *Prolegomena*.

20. *Philosophy of the State.*

Professor CAMPBELL.

Second Semester.

Man as a philosopher, developing his political environments. Outlines of historical theories. Monarchy and its differentiations. Democracy and its limitations. Fundamental relations of Executive, Legislative and Judicial factors. Powers and functions of the modern State.

21 and 22. *Systematic Philosophy.*

Professor CAMPBELL.

First and Second Semesters.

Independent investigation at the sources of some important philosophical work, ancient or modern. Selection may be made from Greek, Latin, German, French, or English texts. It is the aim to develop a competency for exact research according to the methods of recent literary and historical criticism.

Course 17, and the following courses are intended for graduate students, hours and days to be arranged with the instructor. They may, however, be elected by undergraduates who have made them a part of their group in Philosophy, or who have satisfied the instructor as to their competency to pursue them.

MUSIC

1. *Music as an Art.*

A

Director MORSE.

First Semester, 3 hrs.

A general study of the development of the art of music, designed to prepare one to understand and appreciate musical performances. No previous musical study is necessary in preparation for this course.

Sound, musical sound, notation, rhythm, melody, harmony, their evolution and application in modern music. Musical forms with analyses.

2. *Music as an Art (continued).*

A

Director MORSE.

Second Semester, 3 hrs.

Analyses continued. Study of the great composers, their lives, characteristics, works, and their influence upon the development of modern music. Some representative works will be studied in detail.

3 and 4. *Harmony.*

B

Director MORSE.

First and Second Semesters, 3 hrs.

Systematic study of intervals and chords, and their correct and effective use in four-part harmony. Ability to play four-part harmony (like a hymn tune) is necessary for this course. Emery's *Harmony*. Tyndal's *Sound*. Boise; Richter; Gow.

ARCHÆOLOGY

1. *Greek Art.*

A

Professor G. D. LORD.

First Semester, 3 hrs.

This course, beginning with an introduction on the Arts of Egypt, Assyria, and Phœnicia in their relation to Greek Art, presents the History of Greek Art in its most significant products of Architecture, Sculpture, and Painted Vases. In this course, and in those that follow, constant use is made of the Sullivan collection of photographs purchased by contributions from Alumni. Text-book supplemented by discussions, and lectures illustrated by lantern slides. Open to all Sophomores.

2. *Greek Life.*

A

Professor G. D. LORD.

Second Semester, 3 hrs.

The Life of the Ancient Greeks, particularly the Athenians, from the evidence of the Monuments and of the Literature. By manual, assigned readings, and lectures. Open to all Sophomores.

3. *Topography and Monuments of Greece.*

B

Professor G. D. LORD.

First Semester, 3 hrs.

This course informs the student of the sources and the more important characteristics of the materials for Greek Archæology. Selections from Pausanias will be read, with critical commentary, covering a part of his description of the topography and monuments of Athens, Eleusis, Olympia, and Delphi. Open only to those who have passed Greek 5 and 6.

Courses 3 and 3a are offered in alternate years.

3a. *Introduction to Greek Epigraphy.*

C

Professor G. D. LORD.

First Semester, 3 hrs.

In this course the development and the more important characteristics of Attic Inscriptions will be studied by the aid of a carefully selected collection of squeezes. The last half of the course will be devoted to the study of a limited period in Athenian history where the sources are conspicuously Epigraphical. Open only to those who have passed Greek 5 and 6.

[Offered in 1903-1904.]

4. *Greek Sculpture.*

C

Professor G. D. LORD.

Second Semester, 3 hrs.

Sculpture; study by readings and by lectures. Independent studies from casts and photographs are required. Ability to read French and German is very desirable for this course but will not be required at present. Open to those who have passed Greek 5 and 6, or Archæology 1.

5. *Roman Archæology I.*

B

Professor MOORE.

First Semester, 3 hrs.

Architecture, with special reference to its origins, and to the modern employment of Roman forms. Themes based upon Vitruvius and Pliny the Elder, or upon recent French and German authorities.

6. *Roman Archaeology II.*

B

Professor MOORE.

Second Semester, 3 hrs.

Painting, Mosaic, Sculpture, and the minor arts. Themes, as in Course 5.

7. *Roman Topography.*

B

Professor BURTON.

First Semester, 1 hr.

The development of the city of Rome and the history of its monuments. The course will consist chiefly of lectures illustrated by photographs and plans. Collateral reading will be required.

[Not offered in 1904-1905.]

- For Roman Epigraphy see Latin 15 and 16.

For classical art in the Renaissance see History 12.

EDUCATION

History 1 and 2, and Philosophy 1 and 2 are strongly recommended as preparation for the courses in Education.

1. *History of Education.*

B

Mr. LEWIS.

First Semester, 3 hrs.

This course is designed to give the student an appreciation of the meaning of Education and an acquaintance with the rise and historical solutions of its chief problems. The development of educational thought is traced in its relations to the development of civilization. Special stress is laid on education since the Renaissance. The main facts about the national school systems and the educational reformers are considered important, but no attempt is made in so brief a course to accumulate a mass of easily forgotten details. Rather the emphasis of the work is laid on an endeavor to understand the significance of the important facts for our present educational problems in the United States. Lectures, supplementary readings, and reports.

2. *Introduction to Educational Theory.*

B

Mr. LEWIS.

Second Semester, 3 hrs.

The aim of this course is to present such well accepted principles and to discuss such important problems in the field of education as

will be of value to the citizen, parent, and member of school board, as well as to the teacher. The following topics indicate the nature and scope of the work: The Meaning, Scope, and Aim of Education; Individual and Social Aspects; the relation of Psychology and Ethics to Educational Theory and Practice; Factors in Education; Elementary and Secondary Schools, their Special Aims and Courses of Study; Educational Values; Correlation of Studies; Flexibility; General Principles of Method; School Hygiene; Moral Training.

Recitations, lectures, discussion, and required readings. Professor HORNE's *Philosophy of Education* will be used as a text-book during the first part of the course.

Courses 1 and 2 are open to Seniors and to Juniors by permission of the instructor.

3 and 4. *Applied Psychology.*

C

Professor HORNE.

First and Second Semester, 1 hr.

Lecture course. Subject for the year: the Application of the Science of Psychology to the Art of Teaching. Readings and two theses. One hour per week throughout the year. This course is intended for Seniors and Graduates who expect to enter the profession of teaching. Philosophy 1, or its equivalent, is presupposed.

Intended for Seniors and Graduates.

A Minor in Education is obtained by combining History 1 and 2 or Philosophy 1 and 2 with Education 1 and 2.

DEPARTMENT OF PEDAGOGY

MR. F. C. LEWIS, DIRECTOR. PROFESSORS C. D. ADAMS, J. K. LORD, SHERMAN, WORTHEN, BARTLETT, PATTEN, FOSTER, W. A. ADAMS, EMERY, DOW, AND HORNE.

Education 1 and 2 are required as preparation for this work.

The aim of this department is to give men holding the bachelor's degree a year of definite preparation for the work of instruction and management in secondary schools. This aim is to meet a steadily growing demand in high schools and academies for specially trained teachers.

The work of the year consists of three related branches: (a) Further study of the special subject or subjects to be taught. (b) Practical teaching and observation. (c) Instruction in pedagogy.

(a) This branch of the work is threefold: review of the elementals of the subject to be taught; instruction in methods and devices for teaching; advanced work in the chosen subject.

(b) Practice teaching under constant supervision and criticism is continued throughout the entire year. The student-teacher not only instructs but identifies himself with the life in the town high school. He becomes thoroughly acquainted with the students and their interests; confers with the principal on matters of discipline and instruction; assists in the management of the main-room and in every way fulfils under direction precisely the functions that will be required of him when he enters his life work.

At a convenient time during the year the members of the department go to Boston to visit schools and observe model teaching. This work is carefully planned in advance. At the end of each day's visiting the men meet and under the leadership of the Instructor in Pedagogy report and discuss the day's observations. The aim of all this practical work is to make the candidates immediately more efficient as class-room teachers.

(c) The instruction in Pedagogy is designed, first, to supplement the practice teaching by discussing school management and the principles of general method, together with their psychological basis; second, to furnish the student under training with a breadth of view and interest in his profession which springs from an acquaintance with the variety of educational problems and the significance of educational movements; third, to acquaint the student with the literature of his profession; and, finally, to furnish him with such a knowledge of educational matters pertaining to elementary as well as secondary education that in his community he may help cultivate public opinion in the line of the best educational practice and thereby double his service.

The history of education and the principles of education offered senior year serve as an introduction to this work and are required of all who enter the department.

The following are the courses offered by the department during the year 1904-1905:

PEDAGOGY

1. *Lectures on Pedagogy.* These lectures will be supplemented by discussions, required readings and reports. Two exercises a week throughout the year.

The work will cover the following topics: The general principles of school management and method, together with the psychological basis for both briefly summarized; the problems of organization and administration, as political control, functions of school board, sanitation and hygiene, school architecture and equipment, supervision, the course of study, grading and promotion of pupils, and educational resources of the community; and finally, a brief survey of modern school systems.

MR. LEWIS.

2. *Seminar in Education.* One two-hour exercise a week.

The aim of this Seminar is threefold: to develop a critical attitude toward educational problems; to review current educational literature; and to investigate, discuss and assimilate the more important topics brought forward in the lecture course. While research work is not a central feature of this course, the methods of research will be employed to investigate various topics. Each member makes weekly reports.

MR. LEWIS.

3. The members of the Department are advised to elect Education 3 and 4 (Applied Psychology). This course is described under the Undergraduate Courses.

PROFESSOR HORNE.

GREEK

The Greek course in Pedagogy will include a review of all preparatory work, beginning with the Greek Reader. It will involve drill in pronunciation, the study of method in teaching each subject, the discussion of the more difficult grammatical points, methods of acquiring skill in sight reading, of increasing vocabulary, and securing accuracy in detail.

Students in this course will be required to do a considerable amount of private reading in an author assigned by the instructor.

The undergraduate courses, Philology 3 and Greek 20, are essential to the work of this year, and must be elected by graduate students who have not taken them as undergraduates.

The Greek course in Pedagogy is open to students who have taken the undergraduate courses in Greek, amounting to three hours a week, at least to the end of Sophomore year, and who are, in the judgment of the instructor, fitted to begin the work of the course.

PROFESSOR C. D. ADAMS.

LATIN

The work of these courses will be of two kinds. One will be advanced study intended to enlarge the student's knowledge of the Latin language and literature, and requiring some independent research. The other will outline the work of preparation for College, and will follow it through the Latin Reader, Cæsar, and Vergil. Careful attention will be given to pronunciation, including hidden quantity, and its application to metrical reading, to syntax, to the knowledge of forms, to derivation, to reading at sight, to composition, and in general to the method and character of grammatical drill. In some cases undergraduate courses will be allowed or required in addition to the course outlined above.

Students wishing to enter the Latin courses in Pedagogy must have taken the undergraduate courses, amounting to three hours a week, at least to the end of Sophomore year, and must have given satisfactory evidence that they are qualified to enter upon the courses in Pedagogy.

PROFESSOR J. K. LORD.

ENGLISH

The English course in Pedagogy will consist of the detailed study of preparatory English and of advanced work in composition and literature. The review of preparatory work will be made with constant reference to methods of teaching both literature and composition, to the consideration of text-books, and to the correction of students' written work. The advanced course will consist of instruction in composition, with constant practice, and of the careful study of certain masterpieces of English and American literature, particularly of those books which are required for entrance to College. The whole aim of the course will be to fit the students to become teachers of English in secondary schools.

The English course in Pedagogy is open to students who have taken the undergraduate courses in English at least to the end of Junior year, or their equivalent in Senior year; and who, in the opinion of the instructor in charge of the course, are competent to pursue and profit by the course.

PROFESSOR EMERY.

FRENCH

The course offered in French will consist of a study and classification of French sounds, and drill in the pronunciation and reading aloud of French; a careful review of the essentials of French grammar, with exercises in composition to illustrate them; practice in writing French at dictation and in giving paraphrases and brief resumés in French of a given text; discussion of methods of teaching French and of the value and place of various authors and text-books in a graded scheme of elementary instruction in the language.

Although this course is intended primarily as a language drill, a portion of it will be devoted to the special study of an author.

PROFESSOR DOW.

GERMAN

The work will consist of direct preparation for the teaching of elementary German in preparatory schools.

Careful study of methods, the difficulties of teaching pronunciation, the subject of composition, paraphrasing, dictation, word-formation, enlarging the vocabulary. Detailed study of courses in elementary German. Discussion of text-books. The geography and leading facts concerning Germany.

PROFESSOR W. A. ADAMS.

This course will be open only to those who have had three years of German, and who, in the judgment of the instructor are qualified to pursue this course.

MATHEMATICS

The work in Mathematics will require a three-hours' course, both Semesters. Arithmetic, algebra, geometry, and trigonometry will be taken up in order, especial emphasis being laid on the work of the high schools in these subjects. A careful study will be made of at least three standard text-books in each subject; outlines will be formed and text-books compared. Methods of presenting the most important topics will be fully discussed. Each subject will be carried considerably beyond the high school limits. The historical development of each subject will be thoroughly investigated in connection with their natural order of sequence. Actual work accomplished in the classroom will be noted by personal observation throughout the year. The proper foundation for the course requires a fair knowledge of analytic geometry and calculus, and any who do not present these, on admission to the department must take a three-hours' course in each for one Semester.

PROFESSORS SHERMAN AND WORTHEN.

CHEMISTRY

The course includes a careful review of elementary chemistry with discussion of the method of presenting the more difficult subjects, practice in the preparation of reagents and simple apparatus, and the comparison and criticism of various elementary text-books.

Each student will also do advanced laboratory work on special lines assigned by the instructor.

The course is open to students who have completed Courses 2, 3, 4, 5, 7, or equivalents.

PROFESSOR BARTLETT.

BIOLOGY

The nature of the graduate course will vary to meet the requirements of the individual. It will ordinarily consist of training in the collection and preparation of the animals and plants useful for demonstration in secondary schools; the study of their life-history as far as practical in the field; the construction of home-made apparatus, and the methods of performing such simple experiments on living organisms as are suitable for the public schools; and criticism of methods of presentation of special topics in the field, laboratory, and class-room. Opportunity will be given to obtain practical experience in teaching by assisting the regular instructors in the elementary courses.

Candidates for this course must have done creditable work representing the equivalent of six hours a week for two years in Zoölogy and Botany.

The candidates should have taken at least one three-hour Semester course in each of the following subjects: — Elementary Biology, Invertebrate Zoölogy, Comparative Anatomy of Vertebrates, Cryptogamic Botany, and Phanerogamic Botany. The remaining time, of three hours for one year, may have been given to more advanced courses in either Zoölogy or Botany.

PROFESSOR PATTEN.

HISTORY

The work will include (1) training in practical methods of teaching in the schools and (2) study adapted to the special needs of the individual.

1. To give clear and practical guidance in the "maze of possibilities" of the modern methods of teaching History, the student will at

once be set to reading carefully one or more of the best recent textbooks in the four courses recommended for the secondary schools, and will discuss these with the instructor. He will be asked, in connection with this work, to read the Report of the Committee of Seven to the American Historical Association on "The Study of History in Schools," and to apply its recommendations by making a plan of work for at least two courses, finding a place for such definite use of textbooks, supplementary reading, "sources," written work, map work, and lectures as shall interest and develop the real boy and girl in the secondary school. After studying the programmes of a few of the best schools in Germany and this country, he will be expected to observe and criticise in detail the actual work in one or two, and then attempt to adapt his plan to the actual possibilities of these schools.

2. To round out his own historical knowledge, he may be advised to take courses not already elected in college. For training in power of criticism and insight, he will be asked to read entire some one of the best examples of modern historical writing, and discuss its merits or limitations; and to present the results of his own investigation of a topic, limited in scope, based mainly on contemporary sources. This course is open to those who have taken three years of college history, or to teachers whose experience may be considered a fair equivalent for some of such courses.

PROFESSOR FOSTER.

TEACHERS' CONFERENCES

A conference of teachers in secondary schools is held at the College every year. The whole time of each conference is given to the discussion of the work in some one department, or group of closely related departments.

A conference of teachers of English was held May 14 to 16, 1903. The following topics were discussed:

The Place of Grammar in the Secondary School.

The Use of the Model in English Composition.

Is English "Untaught and Unteachable"?

The Use and Abuse of Outside Reading.

A Typical Hour's Recitation in "Silas Marner."

The College and the Secondary Schools, "College Requirements."

Theme Correction.

Elocution in the Secondary School.

The Lake Poets (Illustrated Lecture).

The Combination of Instruction and Composition in Literature.

The Necessity of English in the Secondary School.

Reports of this conference will be mailed free of cost upon application to the Director.

The Spring conference of 1904 will be for teachers of Mathematics.

OUTLINE OF STUDIES

FRESHMAN YEAR

FIRST SEMESTER

A.B.		B.S.	
PRESCRIBED		PRESCRIBED	
	hrs.		hrs.
Greek 5, or	3	French 5, or	3
French 5, or		German 5	
German 5		English 1	
Latin 1	3	Mathematics 1a, 3	4
English 1	2	Hygiene	1
Mathematics 1	4		—
Hygiene	1		10
	—		
	13		
ELECTIVE (choose one)		ELECTIVE	
	hrs.	(Choose one from each group)	
Greek 1	3	Greek 1	3
French 1		French 1	
German 1		German 1	
	—	Graphics 1	3
	3	Physics 1	
	—	Chemistry 3	
	3	Biology 1	
	—	History 1	
	16		6
			16

SECOND SEMESTER

A.B.		B.S.	
PRESCRIBED		PRESCRIBED	
	hrs.		hrs.
Greek 6, or	3	French 6, or	3
French 6, or		German 6	
German 6		English 2, 8	
Latin 2	3	Mathematics 6, 8	4
English 2, 8	3		—
Mathematics 2, 4, 4a	4		10
	—		
	13		
ELECTIVE (choose one)		ELECTIVE	
	hrs.	(Choose one from each group)	
Greek 2	3	Greek 2	3
French 2		French 2	
German 2		German 2	
	—	Graphics 2	3
	3	Physics 2	
	—	Chemistry 4	
	3	Biology 2	
	—	History 2	
	16		6
			16

Students presenting Mathematics II for admission will take Mathematics 1a, 3;
those presenting only Mathematics I, will take Mathematics 1.

SOPHOMORE YEAR

Each student must elect 15 to 18 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 3	3	French 11	3	Physics 3	3
Greek 7	3	Spanish 1	3	Chemistry 3	3
Greek 9	3	Italian 1	3	Chemistry 5	3
Greek 15	1	German 1	3	Biology 1	3
Latin 3	3	German 3	3	Biology 1a	2
Latin 5	2	German 7	3	Biology 3	3
Latin 7	1	German 11	3	Biology 5	3
English 3	3	German 15	3	Mineralogy 1	3
English 9	3	Mathematics 5, 7, 9	4	History 1	3
French 1	3	Mathematics 11	4	History 3	3
French 3	3	Graphics 3	3	Music 1	3
French 7	2	Physics 1	3	Music 3	3
French 9	2			Archæology 1	3

SECOND SEMESTER

	hrs.		hrs.		hrs.
Greek 6	3	French 12	3	Physics 4	3
Greek 8	3	Spanish 2	3	Chemistry 2	3
Greek 10	3	Italian 2	3	Chemistry 4	3
Greek 16	1	Italian 4	2	Chemistry 6	3
Latin 4	3	German 2	3	Biology 2	3
Latin 6	2	German 4	3	Biology 4	3
Latin 8	1	German 8	3	Biology 6	3
English 4	3	German 12	3	Mineralogy 2	3
English 10	3	German 16	3	History 2	3
French 2	3	Mathematics 10, 10a	4	History 4	3
French 4	3	Mathematics 12	4	Music 2	3
French 8	2	Graphics 4	3	Music 4	3
French 10	2	Physics 2	3	Archæology 2	3

JUNIOR YEAR

Each student must elect 15 to 18 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 11	3	Spanish 3	3	Chemistry 7	4
Greek 13	3	Italian 1	3	Biology 3	3
Greek 17	1	Italian 5	3	Biology 5	3
Latin 9a	3	German 7	3	Biology 7	3
Latin 11a	3	German 11	3	Mineralogy 1	3
Latin 13	1	German 15	3	Mineralogy 3	3
Latin 15	1	German 19	3	History 3	3
English 5	3	German 21	3	History 5	3
English 13	3	Philology 1	3	Economics 1	2
English 15	3	Philology 3	1	Economics 3	3
French 7	2	Mathematics 13	3	Sociology 1	3
French 9	2	Physics 3	3	Philosophy 1	3
French 11	3	Physics 5	3	Music 1	3
French 13	3	Physics 7	3	Music 3	3
French 17	3	Astronomy 1	3	Archæology 3	3
French 19	3	Chemistry 3	3	Archæology 5	3
Spanish 1	3	Chemistry 5	3	Archæology 7	1

SECOND SEMESTER

	hrs.		hrs.		hrs.
Greek 12a	3	Italian 4	2	Chemistry 8b	4
Greek 14a	3	Italian 6	3	Chemistry 12	2
Greek 18	1	German 8	3	Biology 4	3
Greek 20	3	German 12	3	Biology 6	3
Latin 10a	3	German 16	3	Biology 10	3
Latin 12	2	German 18	3	Geology 2	3
Latin 14	1	German 20	3	Mineralogy 2	3
Latin 16	1	German 22	3	Mineralogy 4	3
Latin 18	3	German 24	3	History 4	3
Latin 20	3	Mathematics 14	2	History 6	3
English 6	3	Graphics 4a	2	History 12	3
English 16	3	Engineering 2	3	Economics 2	2
French 8	2	Physics 4	3	Economics 4	3
French 10	2	Physics 6	3	Political Science 2	3
French 12	3	Physics 8	3	Sociology 2	3
French 14	3	Astronomy 2	3	Philosophy 2	3
French 18	3	Astronomy 2a	3	Philosophy 4	3
French 20	3	Chemistry 4	3	Music 2	3
Spanish 2	3	Chemistry 6	3	Music 4	3
Spanish 4	3	Chemistry 8a	4	Archæology 4	3
Italian 2	3			Archæology 6	3

SENIOR YEAR

Each student must elect 12 to 15 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 11	3	Philology 5	3	Economics 5	3
Greek 13	3	Mathematics 15	3	Economics 7	3
Greek 17	1	Physics 9	3	Economics 11	3
Latin 9a	3	Astronomy 3	3	Economics 13	3
Latin 11a	3	Astronomy 3a	3	Economics 15	1
Latin 13	1	Chemistry 5	3	Political Science 3	2
Latin 15	1	Chemistry 7	4	Political Science 5	3
English 5	3	Chemistry 15	4	Sociology 3	3
English 13	3	Biology 7	3	Philosophy 3	3
English 17	3	Biology 9	4	Philosophy 5	2
English 19	3	Biology 13	3	Philosophy 7	2
English 21	3	Anatomy 1	3	Philosophy 9	2
French 13	3	Physiology 1	3	Philosophy 11	2
French 17	3	Medical Physics 1	2	Philosophy 13	3
French 19	3	Geology 3	3	Education 1	3
Spanish 3	3	Geology 5	3	Education 3	1
Italian 5	3	Mineralogy 3	3	Archæology 3	3
German 11	3	Mineralogy 5	3	Archæology 5	3
German 19	3	History 3	3	Archæology 7	1
German 21	3	History 5	3	Tuck School	18
Philology 3	1	Modern History 1	3	Thayer School	18
		The Far East 1	3	Medical School	18

SECOND SEMESTER

	hrs.		hrs.		hrs.
Greek 12a	3	Mathematics 16	2	Modern History 2	3
Greek 14a	3	Mathematics 18	3	The Far East 2	3
Greek 18	1	Physics 10	3	The Far East 4	3
Greek 20	3	Astronomy 4	3	Economics 6	3
Latin 10a	3	Astronomy 4a	3	Economics 8	3
Latin 12	2	Chemistry 6	3	Economics 12	2
Latin 14	1	Chemistry 8a	4	Economics 14	3
Latin 16	1	Chemistry 8b	4	Economics 16	1
Latin 18	3	Chemistry 12	2	Political Science 4	1½
Latin 20	3	Chemistry 16	4	Political Science 6	3
English 6	3	Biology 10	3	Political Science 8	2
English 20	3	Biology 12	3	Political Science 10	2
English 22	3	Biology 14	3	Sociology 4	3
French 14	3	Biology 16	2	Philosophy 4	3
French 18	3	Histology 1-2	4	Philosophy 6	2
French 20	3	Anatomy 2	2	Philosophy 8	2
Spanish 4	3	Physiology 2	3	Philosophy 10	2
Italian 6	3	Geology 6	3	Philosophy 12	2
German 12	3	Mineralogy 4	3	Philosophy 14	3
German 18	3	Mineralogy 6	3	Education 2	3
German 20	3	History 4	3	Education 4	1
German 22	3	History 6	3	Archæology 4	3
German 24	3	History 12	3	Archæology 6	3

REGULATIONS

I. ATTENDANCE AT EXERCISES

Attendance is required of all undergraduates at recitations and lectures continuously through each Semester according to the timetable of the studies pursued. Attendance is required also at daily College prayers, on week days at 7.50 A.M., and on Sundays at 5.30 P.M.

A student may absent himself from seven chapel services in each Semester; and from each course of instruction as many times as the course is scheduled exercises per week, without affecting his standing, provided, however, that he meets all the requirements of the instructor.

These allowed absences cannot be taken *immediately preceding or following* a recess or vacation.

Each unexcused absence from recitation in excess of those allowed above shall entail a deduction of *four* points from the mark in the course in which the absence occurred; and for each absence in excess of the allowed number from chapel, a deduction of *one* point shall be made from the student's general average; when his general average is brought below 50 by excess of chapel absences he shall be required to take additional hours of recitation work, the amount to be determined by the Committee on Administration.

The Medical Director has sole charge of all excuses for absence occasioned by sickness, but under the Physicians' certificate system no excuse will be allowed for the first day's absences for sickness.

The Committee on Athletics has sole charge of all excuses for absence granted to the various Athletic teams.

The Committee on Organizations other than Athletics has sole charge of all excuses for absence granted to the various organizations under its control.

The Dean has power to grant excuse for absence for all other causes. All applications to the Dean for excuse for absence shall be made in writing, with full statement of reasons, and shall be presented in person. A blank form will be furnished at the office. They must be in advance, if possible. If, by reason of impossibility, they are not

made in advance, they must be made within three days after the expiration of the period of absence, and must contain a full statement of the reason for the delay in presentation.

Absence from any exercise shall not release the student from the responsibility for the work required of other students, or which would have been required of him if he had been present.

Students absent from any course for two-thirds of that course, and students whose absences from a Laboratory or Lecture Course amount to more than one-third of the exercises, shall receive no credit for such course.

II. SCHOLARSHIP

The general average of the marks of each student for the several departments shall be ascertained every Semester, each course having weight in proportion to the number of exercises assigned to it and the relative importance of recitation and examination (in each course) depending upon the nature of the course and the method of instruction.

This general average shall be the student's scholarship mark for the Semester, subject, however, to a deduction for excess of absences.

When a student has met all the requirements of a course, a single numerical mark shall be recorded, indicating that he has *passed* in the course. When a student's deficiency is of such a nature that it can be made up by examination or in any other way than by repeating the course, he shall be reported as *deficient*, with an accompanying statement as to the manner in which the deficiency is to be made up. When a student's failure is of such nature that no credit can be given him for the course, he shall be reported as *failed*.

A statement of scholarship rank and absences is sent twice annually to the parent or guardian of each student. The scholarship rank shall be designated as follows: A (90-100); B (80-90); C (70-80); D (60-70); E (50-60).

Students whose standing for the whole College course averages 85, or more, receive Commencement appointments.

Freshmen whose attendance is unsatisfactory, or who have serious *deficiencies* in scholarship, or who have *failures* reducing their credit to less than eleven hours, or who, having entered on condition, show by the unsatisfactory character of their current work that they are unable to continue without further preparation, shall be dropped from College at the close of the first Semester.

A student reported as *failed* in any course of Freshman year or in any course in a group of electives essential to a degree must make up that course with the next class, except that a failure in the first Semester of Senior year may be made up by an equivalent course in the second Semester, assigned by the Committee on Administration, and that a failure in the second Semester of Senior year may be made up by examination not later than the last Saturday before Commencement. A fee of five dollars shall be paid into the College Treasury for each examination so given.

III. EXAMINATIONS

The regular examinations in each course of study are held in the middle and at the close of the year.

When a student is reported as *deficient* in any subject at the close of either Semester, and that deficiency is of such a nature that it can be made up by an examination, such examination must be taken at a designated time, or no credit will be allowed for that course.

Students are required to be present promptly at the hour named for the examination, and no one is admitted after seven minutes have elapsed.

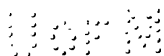
An unexcused absence from an examination shall entail a mark of zero. The Dean alone has power to excuse from an examination.

Any student proved to have been dishonest in examination shall be deemed to have forfeited his right to be a member of the College, and shall be permanently separated therefrom.

IV. ENROLLMENT IN CLASSES

A student shall be enrolled in the Freshman class until he has completed at least twenty-two Semester hours of work, and has removed all entrance conditions; he will then be enrolled in the Sophomore class until he has completed fifty-four Semester hours, including all requirements of Freshman year; then in the Junior class until he has completed at least eighty-six Semester hours; then in the Senior class until he has completed one hundred and twenty-two Semester hours, which is the requirement for a degree.

A student who has failed to be promoted with his class may, on application to the Dean for a schedule of his work, take with the



higher class courses sufficient to make up the allowed number of hours, provided they do not conflict with the courses which he is pursuing with the lower class ; and such student may be allowed by the Committee on Administration, on individual petition, to take such courses with the higher class, in addition to the regular number of hours allowed, as may in their judgment be undertaken without injury to his other work. When the student shall have done enough extra work to satisfy all requirements of the higher class, he shall be restored by the Dean to full standing with that class, and the Dean shall notify the Faculty of his restoration. All extra work done by such students in the attempt to regain standing must be by regular courses in the class-room.

V. COLLEGE ORGANIZATIONS

No Athletic contest shall take place before 4 P.M., except on Saturday afternoon and holidays, unless by special permission of the Committee on Athletics.

The names of all candidates for the various athletic teams must be furnished to the Committee on Athletics and to the Dean, to be posted on the bulletin board not later than October 10th, December 10th, and March 10th for the autumn, winter and spring contests, respectively.

No special student, or one who is objected to by the Committee on Administration, or who fails to meet the requirements of the Committee on Athletics or of the Committee on Organizations other than Athletic, shall be allowed to be a member of any athletic team or other organization representing the College.

VI. REGISTRATION

All undergraduate students are required to register before the opening of the year, on Wednesday from 3 to 5 P.M., or on Thursday from 8 to 9 A.M. Any undergraduate failing to register at the appointed time will be charged with overcuts until the time of his registration at the Dean's office unless previously excused.

All students entering College must register during the three days previous to the opening of the year.

RELIGIOUS SERVICES

Prayers are conducted by the President each week-day morning in Rollins Chapel, and a vesper service is held on Sunday. All undergraduate students are required to be present.

While the service on Sunday in Rollins Chapel is the recognized service for all students, insuring unity in the worship of the College, provision is made for the attendance of students at the churches of the town. The hour of Chapel Service has been fixed in the latter part of the day to enable students to attend a morning service in the churches of their respective faiths. The churches in Hanover are the old College Church (Congregational), St. Thomas Church (Episcopalian), and St. Denis Church (Roman Catholic). The Methodist Church holds frequent services in the village, and there is a Baptist Church in another part of the town, three miles distant. For the present the College Church is supplied by a Board of Preachers, see page 33.

The Sacrament of the Lord's Supper is observed in Rollins Chapel on the first Sunday of each alternate month during the College year, beginning with the month of October.

One or more courses of lectures on the Bible are given on successive Sundays by competent Biblical scholars. These lectures are designed to present the Bible in its essential meaning and purpose, and to meet the spiritual as well as the critical needs of students.

Bartlett Hall offers ample and attractive rooms for the use of the College Young Men's Christian Association. The Association is in charge the present year of Mr. A. K. Skinner as Secretary, a graduate of 1903, to whom all communications may be addressed in regard to the religious work of the College, or the religious life of the students.

The Brotherhood of St. Andrew maintains an organization among the students connected with St. Thomas Church.

EQUIPMENT

THE LIBRARY

In its several collections, the College Library represents the accumulations of a century and a quarter. It originated in valuable gifts of books to the first President from English and Scotch societies for promoting religious knowledge; also, from the Rev. John Erskine, Mr. William Dickinson, and others. Similar benefactions have followed, among the more important of which are the Johnson, Phillips, Shattuck, Shurtleff, Parker, Smith, Appleton, Bond, Grimes, and Chamberlain donations.

For many years separate libraries were sustained and managed by the public literary societies of the students, known as the Social Friends and the United Fraternity. The Philotechnic Society, organized at a later date among the students of the Chandler School, also made important additions to these collections.

In 1874 the different libraries were consolidated, and put under the control of the College, but the principle of voluntary contribution, by which the collections were so largely gathered, is still maintained, and the annual sum of six dollars is collected from each student, for convenience, with the tuition. According to the agreement through which this annual assessment is made, the selection of books to the value of several hundred dollars yearly is entrusted to a committee of the Seniors.

The main collection, numbering about 100,000 volumes and 20,000 pamphlets, with a large accumulation of newspapers and manuscripts, is in Wilson Hall, a commodious and convenient fire-proof building, constructed after approved plans of library architecture. The building is heated by steam, elaborately ventilated, and, including the stack-room, lighted by electricity. The books are arranged according to the "expansive system," so modified as to correspond as nearly as possible to the departments of instruction in the College. There is a card catalogue of authors, and also a classed catalogue of subjects arranged by titles.

The general and departmental reference library, which consists of books reserved for general reference and collateral reading, occupies two rooms on the upper floor and is open throughout the day and evening. This department contains about 10,000 volumes, which are classified according to subjects, arranged upon open shelves with a few exceptions, and may be loaned for the night. This department is under the supervision of the Superintendent of Reference Rooms.

The transfer is also being made of the standard books in literature including the more desirable books in fiction to a separate room where there may be free access to the shelves. The object of this transfer is to allow the greatest familiarity on the part of students with books of the greatest literary value. It is the desire of the management of the Library that students should not only read individual books but that they should know books and authors as making up a library. Books may be taken from the shelves of this room at liberty for use in the room or they can be charged at the counter under the usual rules for the drawing of books.

In an adjacent room may be found current files and bound volumes of leading periodicals.

Wilson Hall also contains over one hundred portraits in oil, and a good collection of photographs for the illustration of art and archæology, coins, curios, etc.

There are department libraries at the Medical School, the Tuck School, the Observatory, the Thayer School building, the Y. M. C. A. Rooms, as well as in the Physical, Chemical, Geological, Botanical, and Zoölogical Laboratories, and in the rooms occupied by the departments of Greek, Latin, and Social Science.

The rooms in Wilson Hall formerly used for offices of college administration are now used for collections on the subject of education for the special benefit of the Faculty.

Books may be drawn for two weeks, excepting certain volumes so indicated, which have been added during the college year, and may be retained but one week. Undergraduates may have four books at a time; resident graduate students, ten; alumni, four. Persons not connected with the College may use the Library upon the payment of four dollars yearly.

The reading and reference rooms are open on week days from 9 A.M. to 10 P.M.; on Sunday the reading room is open from 1.30 to 5.30 P.M.

The Library is open for drawing books from 9 A.M. to 12 M., and from 1 to 5 P.M.

Special attention is given to bibliography, supervision of courses of reading, and personal assistance.

BUTTERFIELD MUSEUM

By the will of the late Ralph Butterfield, M.D., of Kansas City, of the Class of 1839, the College was made the residuary legatee of his estate, in a sum estimated at one hundred and sixty thousand dollars, "for the purpose of founding and forever maintaining a chair and professorship for the purpose of lectures, recitations, and general instruction in paleontology, archæology, ethnology, and other kindred subjects; and for the erection of a building to cost not less than thirty thousand dollars, for the purpose of keeping, preserving, and exhibiting specimens illustrating the aforesaid branches. It is to be optional with the Trustees either to establish a professorship or a series of lectures at stated periods, on the subjects mentioned."

In accordance with the expressed wish of the donor, the Butterfield Museum, a granite and Roman brick structure, one hundred and forty-five by fifty-five feet in dimension, of three stories and a basement, has been erected, and is now occupied by the various departments indicated in the above bequest. Special facilities are offered for instruction in Geology and Mineralogy, in Zoölogy and Botany, and in Archæology and Sociology.

The collections in Geology and Biology are arranged in the Butterfield Museum. They consist of the Frederick Hall collection of minerals and rocks, the Henry Fairbanks collection of birds and insects, restorations of large extinct animals, an extensive herbarium, collections illustrative of archæology, conchology, economic geology, and numerous other specimens, besides topographical models, and a special collection of the rocks of New Hampshire and Vermont, gathered under the auspices of the Geological Survey of New Hampshire. Recently a collection of great value, comprising fifteen hundred specimens of gold, silver, copper, lead, and zinc ores from a section of Montana, forming a complete history of the mineral development of the region, has been presented to the Museum by Clinton H. Moore, Class of 1874, of Putte, Montana.

The working collection of casts and photographs for Greek and Roman Archaeology are in Room S on the third floor; this large and well lighted room is also used for recitations and Seminary work in this department.

A valuable Ethnological collection occupies a room at the east end on the second floor and the unsurpassed specimens of Assyrian Sculpture are arranged along the walls of the adjoining hall.

The main Biological Laboratory is a large room eighty-four by thirty feet, on the north side of the first floor. It is used for the elementary biology courses. A similar room in the basement is used for the work in mammalian anatomy and in the comparative anatomy of vertebrates. Adjoining this laboratory is a thoroughly equipped macerating-room. At the west end of the first floor is the laboratory for the embryology course and for the advanced workers. At the east end is a library, and also a Botanical Laboratory.

In addition to the above-named rooms are five private rooms for instructors, a chemical room, two storerooms, and in the basement a room for live animals and the herbarium. All the laboratories are well equipped with the apparatus necessary for practical biological work.

PHYSICAL LABORATORY

The Wilder Laboratory, the gift of the late Mr. Charles T. Wilder, of Wellesley, Mass., has been occupied since its completion in the summer of 1899 by the department of Physics. The building has a frontage of one hundred and seven feet, and a depth of fifty-six feet, and a rear projection of fifty-five by thirty-five feet.

The laboratories, lecture and recitation rooms occupy three stories and a basement. The basement contains a well equipped workshop and a dynamo room, magnetic and electrical laboratories, a storage battery room, and a laboratory for constant temperature experiments. A large lecture room (seating 200 persons), arranged for lantern projection, and equipped with many conveniences for the purpose of general lectures in physics, is on the first floor. The floor is further divided into offices for the members of the department, two recitation rooms, an electrical laboratory, and an apparatus room. The general laboratory provided for students in the first course in practical physics occupies a section of the second and third floors. The remainder of

these floors is given up to the departmental libraries in physics and astronomy, two apparatus rooms, a chemical kitchen, two suites of rooms for assistants in the department, an unpacking room, and eleven laboratories planned with reference to special work in optics, spectrometry, photometry, photography, acoustics, electric waves, and the heat spectrum.

The building is heated by steam (both direct and indirect radiation) and lighted by electricity. It is supplied, throughout, with water, illuminating gas, and air under pressure; and a part of the building is provided with connections for oxygen and hydrogen gases. The laboratories and lecture rooms are connected by separate circuits with a large switchboard in the basement so that the electrical power of the generators and storage battery is accessible to all parts of the building. Each room is further provided with a separate signal circuit connecting it with a telephone switchboard on the second floor so that time signals may be sent, and other electric communication is easily possible between different parts of the building.

The equipment of the department with instruments and apparatus is being carried forward by the income from funds left the department by Mr. Wilder. The present equipment is adequate for the needs of the lectures in general physics, the junior course in practical physics, and for the advanced courses which are offered.

The nearness of the physical laboratory to the astronomical observatory affords to either department the resources of the other.

OBSERVATORY

The Shattuck Astronomical and Meteorological Observatory is used for the purposes of instruction. It is provided with a telescope by Clark, having an aperture of 9.4 inches, and a focal length of 12 feet, a spectroscope, a four-inch meridian circle, sextants and a chronograph.

CHEMICAL LABORATORY

The Chemical Laboratories occupy the whole of the first and about half of the second floor of Culver Hall. The large northeast room on the second floor has been equipped for quantitative work, and the balances and library have been transferred to adjoining rooms. In

all courses, chemistry is taught by laboratory work, enforced by informal lectures, demonstrations, and short recitations.

The Mineralogical Laboratory is located on the second floor of Culver Hall.

CHANDLER HALL

Through the bequest of the late Frank Willis Daniels, of the Class of 1868, Chandler Hall, recently known as Moor Hall, has been purchased, reconstructed, and enlarged, and fitted for the special uses of the departments of Mathematics and Graphics. The first floor furnishes a large lecture room, accommodating over two hundred persons, and rooms for the elementary courses in engineering; the second floor provides four well arranged rooms for recitation work in mathematics, with private offices for the instructors; the third floor furnishes rooms for recitations, and two large rooms for mechanical drawing, with lighting from above.

The basement is devoted to testing and experimental work in the department of Engineering.

GYMNASIUM AND ATHLETIC FIELD

The Gymnasium is open daily for the use of the students, and during the winter season a regular exercise is required of all members of the Freshman class, and voluntary divisions are formed among members of the other classes. The aim is to reach the large body of students who do not enter into athletic contests, rather than to train athletes.

Through the generous contributions of many of the alumni, an admirable athletic field, with modern improvements, has been laid out near the College buildings. It is provided with all the necessary facilities for base-ball, foot-ball, track athletics, and tennis; including a grand-stand seating six hundred spectators and containing dressing rooms and shower-baths for the use of the students.

All candidates for the Athletic Teams must be examined by the Instructor in Physical Culture before they can be accepted as members of a team, and each team is under medical supervision during the period in which it is engaged in sports.

The Instructor in Physical Culture who is also Director of the Gymnasium takes the measurement of all students entering College, and conducts the Gymnastic exercises for the Freshman Class during the winter months. The Gymnasium and Athletic Field are in his charge.

The general supervision of athletics in the College is committed to an Athletic Council, consisting of three non-resident alumni, three members of the Faculty, and three undergraduates.

Students are admitted to golf and tennis privileges of the Hanover Country Club at moderate rates by the month or season.

WATER SUPPLY

A system of waterworks, established in 1893 at an expense of \$65,000, furnishes, in connection with the aqueduct before in use, an ample supply of water for all purposes. During the last year, the whole area of 1200 acres included within the water-shed has been purchased to insure the purity of the water supply. The precinct is supplied with a thorough system of sewers.

HEATING PLANT

In 1898 the College adopted the method of heating its buildings from a central station, and constructed a plant on the most approved plan at a cost of \$60,000; twenty of its buildings, dormitories, and recitation halls are heated in this way, ensuring a nearly equable temperature.

HOSPITAL

In case of illness, the Mary Hitchcock Memorial Hospital, constructed upon the latest modern plans, and widely known, since its opening in 1893, as one of the best cottage hospitals in the country, furnishes the students such care and comfort as is seldom found outside of the larger cities. A bed is furnished by the College, to meet the needs of students who are unable to bear the expenses of sickness.

The Hospital is under the management of physicians and surgeons who are connected with the Dartmouth Medical School, and students

who enter the Hospital are in charge of members of the Hospital Staff. In the case of students whose parents would prefer to have them treated exclusively by the family physician, the College has made arrangements through which suitable rooms can be secured where the family friends or physician can be in attendance.

All the College buildings are under the direct care and inspection of Dr. Howard Nelson Kingsford, the Medical Director, and every case of illness among the students reported to him receives immediate attention.

THE COLLEGE INN

The Trustees have entirely reconstructed and refurnished the College Inn known as the Hanover Inn for the entertainment of alumni, and friends of the students. The Inn is under the management of Mr. Arthur P. Fairfield, of the Class of 1900. Circulars giving all information in regard to location of rooms, prices, etc., can be obtained from him. The College Inn is open during the entire year.

RAILROAD CONNECTIONS

The railroad station is known as Norwich and Hanover, on the Passumpsic Division of the Boston and Maine Railroad. White River Junction, four miles south of Hanover, is the centre of four lines of railroads: the Concord Division (Boston and Maine system), making connection with Concord, Manchester, Nashua, Lowell, and Boston (four hours and forty minutes to Boston); the Central Vermont Railroad and the Connecticut River Division (B. and M. R. R.), making connection with Springfield, Hartford, New Haven, and New York (eight hours to New York); and also connecting at Greenfield (Fitchburg R. R.) and Springfield (Boston and Albany R. R.) for the West; the Central Vermont Railroad, making connection with Montpelier, Burlington, and the West (thirty hours to Chicago); the Passumpsic Division (B. and M. R. R.), making connection with Wells River, St. Johnsbury, Montreal, and Quebec (eight hours to Montreal).

COLLEGE DORMITORIES

The dormitories of the College accommodate about five hundred students. There are seventy-nine single rooms, two hundred and ten suites for two, and eleven suites for three.

The dormitories are of two kinds,—those heated by steam, with janitor service; and those heated by steam, without janitor service.

In the first class are: Reed Hall, with nineteen rooms in suites for two or three, accommodating forty-four students; the Sanborn House, erected in 1894, with single rooms and with suites for two, accommodating fifty students; the Crosby House, erected in 1896, with single rooms and suites for two or three, with separate bedrooms, accommodating forty students; Richardson Hall, erected in 1897, with single rooms, and suites for one or two, accommodating fifty-six students; Fayerweather Hall, erected in 1900, with single rooms, and suites for one, two, or three, accommodating eighty students; and College Hall, erected in 1901, with single and double rooms accommodating about forty students.

In the second class are: Hallgarten Hall with an annex, arranged in single rooms, and in suites for two, three, or four, accommodating thirty-five students; Thornton Hall, with single and double rooms, accommodating forty-five students; Wentworth Hall, with double rooms accommodating forty-five students; Dartmouth Hall accommodating twenty-five students; and Elm House with accommodations for twenty students.

The first floor of College Hall is devoted to club rooms, making it the social headquarters of the College; an extension furnishes ample accommodation for the "Commons." The second and third floors are devoted to dormitory purposes. Rooms are reserved on the second floor at moderate prices for visiting alumni. The Hall is provided with set bowls and water-closets in the basement, and with bath-rooms and water-closets on the second and third floors.

Richardson Hall is provided with fireplaces in most of the suites, and in a few suites with bath-rooms; there are bath-rooms and water-closets on each floor; Crosby House is provided in nearly all its suites with fireplaces, and is furnished with bath-rooms and water-

closets on each floor; Fayerweather Hall is furnished with bath-rooms and water-closets on each floor, in each of the three sections, and with shower-baths in the basement of each section. Sanborn House is furnished with bath-rooms and water-closets on each floor; Hallgarten Hall with bath-rooms and water-closets on the second floor; Reed Hall with bath-rooms and water-closets on the second floor; Thornton and Wentworth Halls with bath-rooms and water-closets on first floor; Dartmouth Hall is furnished with bath-rooms and water-closets on the third floor, and Elm House with bath and water-closets on the first floor.

All rooms in the College buildings, except College Hall, are unfurnished. In College Hall the bedrooms are furnished with bedsteads, mattresses, chiffonieres and chairs, if desired.

ASSIGNMENT OF ROOMS

Students rooming in the College buildings may retain their rooms from year to year by giving written notice to the Registrar before March 20. The rooms not thus re-engaged are offered to the classes in order of seniority. Applications for rooms must be made to the Registrar in writing, and assignments will be made in order of application.

One student may hold or engage one-half of a double room, but if by June 1 he has failed to secure a room-mate, he will be obliged to relinquish his claim to the room or become responsible for the full rental for the year.

Students expecting to enter College may at any time make application to the Registrar to have their names put on the permanent list for the assignment of rooms. Beginning on May 10 of each year, the rooms which have not been engaged by the men in College will be offered to the members of the incoming class in the order of application. If by July 20 any applicant for a room has failed to file his entrance papers with the Dean, his assignment will be cancelled and the room will be let to another applicant.

Each student renting a room must sign a contract binding him to pay the rent of the room and to occupy the room in person through the entire College year. No student will be released from the rental of his room except by special permission of the Dean. The right to occupy a College room is given only to the student to whom the room

is assigned and to his room-mate. Neither transfers nor exchanges are allowed. For any violation of this rule, each student taking part in the transaction will forfeit his room for the year, and will not be allowed to room in the College dormitories during the remainder of his course.

The time for which the rooms are rented begins on the Thursday before the opening of the College year and ends on the Monday after Commencement. However, rooms in College Hall, with the exception of those occupied by Seniors, are rented, with the understanding that they are to be vacated on the Friday preceding Commencement for the use of the alumni.

The occupants of a room in the College buildings will be held responsible for any disorder or damage occurring therein.

Students leaving College at the end of the year, as well as those who are to change from one room to another, or from a College room to a private house or to a fraternity house, must remove all furniture and other property from their rooms on or before the Monday after Commencement. Furniture not thus removed will be removed by the College authorities and stored at the owner's expense and risk.

PRICES OF COLLEGE ROOMS FOR 1903-1904

In each case the price is for the whole room for the year. For a description of the dormitories see pages 174-175.

A diagram giving the location of each room or suite of rooms, with dimensions, number of occupants allowed, and price, will be sent upon application to the Registrar.

FOR ONE OCCUPANT

- \$30. Elm House, No. 11; Hallgarten, No. 16; Hallgarten Annex, Nos. 27, 28, 29, 30.
- \$40. Elm House, Nos. 3, 12; Fayerweather, No. 36; Hallgarten, No. 9; Hallgarten Annex, No. 26.
- \$45. Dartmouth, No. 4; Elm House, Nos. 8, 13; Thornton, No. 3.
- \$50. College, Nos. 12, 26; Crosby, No. 23; Fayerweather, Nos. 24, 29; Richardson, No. 22; Sanborn, Nos. 24, 27; Thornton, Nos. 4, 7a.
- \$55. College, Nos. 1, 9; Hallgarten Annex, Nos. 21, 23.
- \$56. Dartmouth, No. 6; Reed, No. 12; Thornton, No. 5.
- \$60. College, Nos. 13, 27; Richardson, No. 13; Sanborn, Nos. A, 26, 28.

- \$65. College, No. 23.
- \$70. Fayerweather, Nos. 39, 40; Sanborn, No. 29.
- \$75. Fayerweather, Nos. 45, 46, 51, 52.
- \$80. Fayerweather, Nos. 3, 4, 9, 10, 15, 16.
- \$85. College, Nos. 10, 24; Fayerweather, Nos. 2, 38.
- \$90. College, Nos. 11, 25; Fayerweather, No. 41.
- \$95. Fayerweather, Nos. 47, 53.
- \$100. Fayerweather, Nos. 5, 11, 17; Richardson, No. 28.
- \$110. Richardson, Nos. 10, 27.
- \$120. College, Nos. 14, 28; Richardson, No. 18.
- \$130. Richardson, Nos. 9, 19.

FOR TWO OCCUPANTS

- \$70. Bartlett, No. 4; Thornton, Nos. 12, 14, 20, 22; Wentworth, No. 22.
- \$72. Wentworth, Nos. 4, 12, 14, 20.
- \$76. Dartmouth, Nos. 2, 6, 8, 10; Thornton, No. 24; Wentworth, Nos. 16, 24.
- \$80. Bartlett, No. 1; Dartmouth, Nos. 3, 5, 9; Fayerweather, Nos. 33, 34; Hallgarten, Nos. 15, 17, 18, 20; Thornton, Nos. 7b, 11, 16; Wentworth, No. 2.
- \$82. Dartmouth, No. 12; Thornton, No. 18; Wentworth, Nos. 1, 3, 5, 7, 18.
- \$84. Thornton, No. 10; Wentworth, Nos. 10, 19, 21, 23.
- \$86. Dartmouth, Nos. 1, 11; Thornton, Nos. 13, 15, 17, 19, 21, 23; Wentworth, Nos. 9, 11, 13, 15, 17.
- \$90. Bartlett, No. 3; Dartmouth, No. 7; Elm House, Nos. 4, 5, 9; Thornton, No. 8; Wentworth, No. 8.
- \$92. Thornton, No. 2.
- \$96. Hallgarten, Nos. 5, 7, 11, 13; Thornton, Nos. 1, 9.
- \$100. Bartlett, No. 2; College, No. 8; Elm House, Nos. 1, 10; Fayerweather, No. 35; Hallgarten, Nos. 8, 10, 12, 14; Reed, No. 4.
- \$102. Reed, No. 3.
- \$106. Reed, Nos. 5, 6.
- \$110. College, No. 22; Elm House, Nos. 2, 7; Hallgarten Annex, No. 24; Reed, Nos. 1, 2, 7, 8, 9, 10; Sanborn, Nos. 10, 18.
- \$114. Reed, No. 16.
- \$116. Reed, No. 11.

- \$120. Crosby, No. 17; Elm House, No. 6; Fayerweather, Nos. 1, 19, 37; Reed, No. 14; Sanborn, Nos. 17, 19, 21, 23.
- \$122. Reed, Nos. 18, 19.
- \$124. Reed, No. 15.
- \$130. Fayerweather, Nos. 6, 7, 13, 20, 21, 23, 28, 42, 43, 49; Reed, No. 17; Richardson, Nos. 1, 2, 23, 24; Sanborn, Nos. 2, 9, 20, 22, 24.
- \$132. Reed, No. 13.
- \$140. Crosby, Nos. 16, 22; Fayerweather, Nos. 12, 18, 25, 26, 30, 31, 48, 54; Sanborn, Nos. 3, 5, 7, 11, 13, 15.
- \$150. Crosby, No. 7; Fayerweather, No. 22; Richardson, Nos. 5, 6, 14, 15; Sanborn, Nos. 1, 4, 6, 8, 12, 14, 16.
- \$160. College, No. 7; Crosby, Nos. 1, 14, 19; Fayerweather, Nos. 8, 14, 27, 32, 44, 50.
- \$170. College, No. 21; Crosby, Nos. 3, 9.
- \$180. College, Nos. 2, 4, 5, 16; Crosby, Nos. 2, 11, 15, 18; Richardson, No. 4.
- \$190. College, Nos. 18, 19; Crosby, No. 4.
- \$200. College, Nos. 6, 20; Crosby, Nos. 5, 6, 10, 21; Richardson, No. 3.
- \$210. Richardson, No. 30.
- \$220. College, No. 3; Crosby, Nos. 8, 13, 20; Richardson, Nos. 25, 26, 29.
- \$240. Crosby, No. 12.
- \$250. College, No. 17; Richardson, Nos. 7, 8, 12, 16, 17.
- \$260. Richardson, Nos. 11, 20.
- \$280. Richardson, No. 21.

FOR THREE OCCUPANTS

- \$111. Dartmouth, No. 7.
- \$162. Reed, No. 15.
- \$165. Reed, No. 17.
- \$220. Fayerweather, Nos. 41-42.
- \$230. Fayerweather, Nos. 5-6.
- \$235. Fayerweather, Nos. 47-48, 53-54.
- \$240. Fayerweather, Nos. 11-12, 17-18.
- \$270. Crosby, No. 8.
- \$330. College, No. 17.

COLLEGE HALL WITH COMMONS

With a view to the proper development of the social life of the College, the Trustees have erected College Hall, situated on the west side of the Campus, with a frontage of eighty feet on Main Street and of one hundred and twenty feet on Wheelock Street. The building also carries an extension for a dining-hall fifty feet by eighty-five feet, two stories in height, and finished in Old English Oak, capable of providing for three hundred students at meals. The dining-hall when used for other purposes will seat a thousand.

The lower floor of College Hall is divided into parlors, reading rooms, and club rooms, accommodating the various College organizations. Several of these rooms are accessible from the general dining-hall, and may be used by the alumni at Commencement, or at other times, for class suppers.

The second and third floors are arranged in suites of rooms or in single rooms for the ordinary use of students, and for the use of the alumni at Commencement. For this latter use they are supplied with necessary articles of furniture. A few rooms on the second floor are reserved for the alumni who may wish to visit Hanover at any time while the College is in session.

In the basement, which was planned for such uses, are a large billiard room, grill room, and the various working rooms connected with the dining-hall.

The Dining-Hall Association, open to the Faculty and to all students, is a co-operative body governed by a President and Board of Directors, elected by the Association. Board is furnished at a cost not to exceed three dollars and seventy-five cents (\$3.75) per week, unless a given table may choose to fix the price for itself at five dollars per week. To insure against loss to the Association a bond is required of each member, signed by two responsible parties, or a deposit of ten dollars (\$10) may be made to be kept intact during the period of membership. The whole management is under the supervisory control of a Committee of the Faculty, and the Medical Director is detailed to make frequent inspection of the plant.

COLLEGE BILLS

Each student is charged one hundred dollars for tuition. A further charge of twenty-five dollars is made for certain general privileges, including the use of Library, membership in College Hall, and the various advantages growing out of the increase of the College plant.

Room-rent in the College dormitories is determined by the choice of rooms, heat, care, etc.

The College bills of each year are to be paid in two equal installments. The first payment is due at the beginning of the first Semester (students entering College pay first charge for tuition before matriculation) ; the second on March 10 succeeding. Any delay in payment beyond seven days from these dates, without excuse from the Dean, shall subject the student to loss of standing. Any students failing to make payment within this time shall be entered upon the books of the Treasurer as delinquents, and shall be so reported to the Dean, and notification of the delinquency shall be given to parents or guardians.

Students delinquent in the payment of College bills at the close of the College year will not be allowed to enter the next year until these bills have been paid.

Members of the Senior Class whose College bills remain unpaid will not be admitted to the final examinations in June.

A graduation fee of eight dollars is charged all students taking the bachelor's degree.

No student will be dismissed from College on request unless he shall have paid all his College bills, including the current Semester ; nor shall any student be entitled to a degree until all his College bills are discharged.

Entering students who have been granted scholarship aid will be credited with \$25 on their College bill of the first Semester, leaving \$37.50 balance to be paid before matriculation ; if the scholarship of such student, to be determined at the end of the first Semester, entitles him to a larger credit, allowance will be made upon the College bill of the second Semester.

Students receiving beneficiary aid only to the amount of \$50 will pay \$37.50 each Semester.

Students receiving scholarship aid to the amount of \$70 will pay \$27.50 each Semester.

Students receiving scholarship aid to the amount of \$80 will pay \$22.50 each Semester.

Students receiving scholarship aid to the amount of \$100 will pay \$12.50 each Semester.

All students not receiving scholarship aid will pay \$62.50 each Semester.

Room-rent is payable in two installments, one half at the beginning of the first Semester and one half on March 10 succeeding.

Electric lights, 16 candle-power, including lamps, are furnished at \$7 a year per lamp.

EXPENSES

Expenses may be estimated as follows :

Tuition	\$100.00	\$100.00
College Expenses	25.00	25.00
Text-books	10.00	20.00
Laboratory Fees (if courses elected)	6.00	15.00
Room-Rent	10.00	150.00
Fuel and lights	16.00	45.00
Board from \$3.00 to \$5.00 a week	108.00	180.00
Washing	15.00	30.00
	<u>\$290.00</u>	<u>\$565.00</u>

Room-rent, fuel, and lights are estimated on the supposition that two students occupy the same room.

Expenses, such as furniture, fraternity fees, class-taxes, travelling expenses, etc., vary according to circumstances, and with the character and habits of the individual, and are not included in the above estimate.

No one is advised to attempt a college education until he can assure himself, through the aid of friends, or through his own previous earnings, of a sufficient amount to meet the expenses of the first year. The opportunities for self-help increase during one's college course; it is very rarely the case that one may expect to secure such employment at the beginning as will enable him to meet his expenses.

SCHOLARSHIPS

THE HENRY ELIJAH PARKER FELLOWSHIP

This Fellowship is based upon a fund bequeathed to Dartmouth College by Professor Parker who was Professor of the Latin Language and Literature in Dartmouth College from 1866 to 1896, the last four years as Professor Emeritus.

The value of the fellowship is \$500 a year, and may be held for two years. The holder of the fellowship shall be a graduate of not more than one year's standing, recommended by the Faculty. If judged advisable by the Faculty, he may be allowed a year for special preparation before entering upon the duties of his fellowship or receiving the income attached to it. During the time in which he is upon the fellowship he shall pursue advanced studies, not professional, subject to the approval of the Faculty. He shall also regard himself as committed to an engagement as a teacher in the College for the year after his fellowship expires, in case the College requires his services, at the usual compensation for the grade of his appointment.

RESIDENT GRADUATE SCHOLARSHIPS

Six scholarships, yielding three hundred dollars each for one year, have been provided for graduates of the College who wish to continue their studies in residence. These scholarships are designed particularly for those who intend to teach, but are not limited to those who have this end in view.

THE SCHOLARSHIP SYSTEM BASED ON BENEFICIARY AID

For Scholarship honor irrespective of beneficiary aid, see page 193.

Scholarships, in distinction from prizes, are designed to aid those who are chiefly dependent upon their own exertions in securing a College education. It is not expected that those whose ordinary expenses can be met by parents or through other sources will apply for beneficiary aid.

While scholarship aid is based upon pecuniary need, the amount of this aid above fifty dollars is determined by actual proficiency in scholarship, taken in consideration with faithfulness in attendance and study.

The following rules govern the bestowal of beneficiary aid, and apply to all scholarships : —

(1) All applications must be made on blanks furnished by the Dean, which require the signatures of parties concerned and testimonials in respect to character and attainments.

(2) No student who is not in full standing shall receive beneficiary aid or a scholarship.

(3) In addition to the restrictions which may be imposed by the donors of scholarships, the conditions of careful economy in personal expenses and of abstinence from intoxicating liquors are imposed by the College.

(4) Applications for the renewal of beneficiary aid and scholarship from year to year must be made out on blanks furnished at the Dean's office, and must be filed at his office by June 1 ; each application must contain a complete statement of income and expenditure during the year preceding.

(5) The value of the scholarship in addition to the beneficiary aid will be determined semester by semester according to the rank of the previous semester. In Freshman year the rank of the first semester will determine the amount of scholarship for that year.

(6) Students, whose records are incomplete, must pay their College bills on the basis of beneficiary aid only ; when the work of the previous semester is completed, credit will be given according to standing.

GRADATION OF SCHOLARSHIPS

The system of scholarships based upon beneficiary aid will follow the grades which determine the standing of a student in College; see page 162.

Beneficiary aid to the value of \$50 will be given for grade D, but will not be given below that grade except in cases of marked faithfulness in attendance and study.

Scholarship allowance begins with grade C; grade C entitles the recipient to \$70, grade B to \$80, grade A to \$100.

ENTRANCE SCHOLARSHIPS

(Applicable to those entitled to beneficiary aid.)

Four entrance scholarships of the value of \$100 each will be assigned to those members of each incoming class, who enter by examination with a rank of at least grade B. These scholarships will be assigned in order of rank.

The examination for these scholarships must be taken at the College or at places specified in the catalogue (pp. 67-68) at the June examinations. This examination cannot be divided between preliminaries and finals, nor between the June and September examinations.

COLLEGE SCHOLARSHIPS

(Applicable to those entitled to beneficiary aid.)

Four scholarships of the value of \$200 each will be given in the order of rank irrespective of class to those students who attain the highest standing for the year, provided that standing is above 92.

These scholarships will be announced on July 15 of each year, and the amount of such scholarship in excess of credit allowed during the year on any other scholarship will be paid at that time.

SOURCES OF INCOME FOR BENEFICIARY AID AND SCHOLARSHIPS

I — From lands and funds given by the State of New Hampshire, with an annual income equivalent to sixty scholarships of \$1,000 each. These scholarships are limited to residents of the State.

II — From funds amounting to \$11,000 given by Jeremiah Kingman, of Barrington, New Hampshire, to found the "Kingman Scholarships," eleven in number. "In applying the income annually of one thousand dollars, the preference shall be given to some student from the town of Strafford; and in applying the income of the other ten thousand dollars, preference shall be given to one student from each of the ten counties in the State of New Hampshire."

III — From funds amounting to \$10,000 given by Mrs. Betsey Whitehouse, of Pembroke, New Hampshire, to establish the "John S. Jenness Foundation." By the provisions of the donor, "A worthy and needy applicant from each of the ten counties of the State of New Hampshire shall receive, by preference, the income of one of these scholarships." Another gift by Mrs. Whitehouse is included in the general list of \$1,000 scholarships.

IV — From funds amounting to \$27,000 given chiefly by churches in the state and intended in the first instance for students studying for the ministry.

V — From funds given to found separate scholarships of the value of \$1,000 each. The list is as follows: —

The Aiken Scholarship given by Jonas B. Aiken of Franklin, N. H.

The William Lawrence Baker Scholarship given by Mrs. Caroline A. Lawrence of Winsted, Conn.

The George W. Benson Scholarship given by Mrs. Maria T. Benson of Lawrence, Mass.

The Richard Boylston Scholarship given by the family of Richard Boylston of Amherst, N. H.

The Joseph P. Brooks Scholarship given by Joseph P. Brooks of Chicago.

The Emily Clark Brown Scholarship given by Edward J. Brown, M.D., of Minneapolis, Minn.

The Burleigh Scholarship given by George W. Burleigh of Great Falls, N. H.

The Carr Scholarship given by William Carr of Newport, N. H.

- The Cilley Scholarship given by Jacob G. Cilley of Manchester, N. H.
The Lizzie C. Converse Scholarship given by Miss Sarah E. Converse of Burlington, Vt.
The Cushing Scholarship given by G. W. B. Cushing of New York City.
The Dodge Scholarship given by William E. Dodge of New York City.
The Edgell Scholarship given by George S. Edgell of New York City.
The John M. Ellis Scholarship given by Mrs. Josephine M. Ellis of Milford, N. H.
The Horace Fairbanks Scholarship given by Horace Fairbanks of St. Johnsbury, Vt.
The Thaddeus Fairbanks Scholarship given by Thaddeus Fairbanks of St. Johnsbury, Vt.
The Fairfield Scholarship given by Josiah H. Fairfield of Hudson, N. Y.
The Fogg Scholarship given by William H. Fogg of New York City.
The Gookin Scholarship given by Warren D. Gookin of New York City.
The Greene Scholarship given by William H. Greene of Buffalo, N. Y.
The Mary Harris Scholarship given by Mrs. Mary Harris of Manchester, N. H.
The Tracy H. Harris Scholarship given by Tracy H. Harris of New York City.
The Mrs. Adaline Hartshorn Scholarship given by Mrs. Adaline Hartshorn of Manchester, N. H. (awarded preferably to sons of missionaries).
The Hitchcock Scholarship given by Hiram Hitchcock of Hanover, N. H.
The Hunt Scholarship given by Seth B. Hunt of New York City.
The Hutchinson Scholarship given by John B. Hutchinson of New York City.
The Leonard Jewett Scholarship given by Rev. Leonard Jewett of Hollis, N. H.
The Kendrick Scholarship given by Professor Henry I. Kendrick of West Point, N. Y.
The Kimball Scholarship given by Benjamin A. Kimball of Concord, N. H., annually, \$60.
The Kittredge Scholarship given by Moses Kittredge of St. Johnsbury, Vt.
The Knight Scholarship given by Miss C. Knight.
The Mary Langdon Scholarship given by William T. Savage, D.D., of Godfrey, Ill.
The Lawrence Scholarship given by Aaron Lawrence of Amherst, N. H.
The Lue Lawrence Scholarship given by Miss Sarah Lucretia Lawrence of Amherst, N. H.
The Mary H. Lord Scholarship given by Mrs. Mary H. Lord of Andover, Mass.
The Nesmith Scholarship given by George W. Nesmith of Franklin, N. H.
The Daniel Nettleton Scholarship given by Fred H. Nettleton of St. Paul, Minn.
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- The William W. Niles Scholarship given by William W. Niles of New York City.
- The Parker Scholarship, Memorial of Edith Florence Parker, given by Joel Parker, LL.D., of Cambridge, Mass.
- The Peaslee Scholarship given by Professor Edmund R. Peaslee, M.D., LL.D., of New York City.
- The William Rand Scholarship, from Estate of William Rand, of Rochester, N. H.
- The Richards Scholarship given by Dexter Richards of Newport, N. H.
- The Joel Richardson Scholarship given by James B. Richardson, LL.D., of Boston, Mass.
- The John Jones Sargent Scholarship given by Jonathan E. Sargent, LL.D., of Concord, N. H.
- The David A. Simmons Scholarship given by David A. Simmons of Roxbury, Mass.
- The Stanton Scholarship given by Samuel Stanton of London, Eng.
- The Stephen N. Stockwell Scholarship given by Stephen N. Stockwell of Boston, Mass.
- The Stone Scholarship given by Mrs. Benjamin P. Stone of Concord, N. H.
- The Tenney Scholarship given by William Tenney of Hanover, N. H.
- The William C. Todd Scholarship given by William C. Todd of Atkinson, N. H.
- The Trussell Scholarship given by J. Trussell of Canaan, N. H.
- The Twombly Scholarship given by Horatio N. Twombly of New York City.
- The John S. Wallace Scholarship given by Mrs. Celia Whipple Wallace of Chicago.
- The Thomas Whipple Scholarship given by Mrs. Celia Whipple Wallace of Chicago.
- The Mrs. Betsey Whitehouse Scholarship given by Mrs. Betsey Whitehouse of Pembroke, N. H.
- The George F. Wingate Scholarship given by Isabel C. Wingate of Exeter, N. H.
- The Dutton Woods Scholarship given by Miss Maria Woods of Concord, N. H.
- The Woodward Scholarship given by Dr. Ebenezer Woodward of Quincy, Mass.

VI. From funds given to found separate scholarships as follows :

- The Bouton Scholarship
given by the family of Nathaniel Bouton, D.D., of Concord, N. H. \$1500
- The George E. Chamberlain Scholarships
given by Mrs. Addie D. McAlpine of New York City . . . 5000

The Richard Foster Scholarship	
given by Sarah B. Foster of Washington, D. C. . . .	\$2500
The Gordon Scholarships	
given by Nathaniel Gordon of Exeter, N. H. . . .	2000
The Grimes Scholarship and	
The Mrs. James W. Grimes Scholarship	
given by James W. Grimes, LL.D., of Burlington, Ia. . .	2000
The Haven Scholarships	
given by bequest of Eliza A. Haven to establish six scholarships	9000
The Emily Wheelock Hill Scholarship	
given by Caroline Wheelock Hill of Wilkinsonville, Mass. .	2500
The Ephraim E. Howard Scholarships	
given by James T. Howard of St. Johnsbury, Vt. . . .	6600
By the provisions of the donor not available at present.	
The Henry G. Jesup Scholarship	
given by Professor Henry G. Jesup, Hanover, N. H. . . .	1200
The Henry H. Ladd Scholarships	
given by Henry H. Ladd of Portsmouth, N. H. . . .	5000
The Betsey R. Lang Scholarships	
given by Mrs. Betsey R. Lang of South Boston, Mass. . .	5000
The Sarah Reid McMurphy	
The Henry James McMurphy	
The Abby Frances McMurphy Scholarships	
given by bequest of Mrs. Sarah R. McMurphy of Derry, N. H. .	5000
The William G. Means Scholarships	
given by William G. Means of Boston, Mass.	2000
The Morton Scholarship and	
The Daniel O. Morton Scholarship	
given by Levi P. Morton of New York City	2000
The Albert Onion and	
The John P. Williams Scholarships	
given by Mrs. Abigail W. Onion of Chester, Vt.	2000
The Smyth Scholarship Fund	
from Estate of Frederick Smyth of Manchester, N. H. . . .	5000
The Samuel Swan Scholarship and	
The Janet Swan Scholarship	
given by Miss Elizabeth S. Swan of Peterborough, N. H. . .	2000
The Wheeler Scholarships	
given by David E. Wheeler of New York City	2000
The Dr. Chase Wiggin Scholarship	
given by Dr. Chase Wiggin of Providence, R. I.	2300
By the provisions of the donor two-thirds of the income is awarded.	
Luke Wood Fund for Scholarships	
Bequest of Martha W. Brown of Hartford, Conn.	\$4850

The "Class of 1876" Scholarship	
given at their 25th reunion.	\$2500
The "Class of 1877" Scholarship	
given at their 25th reunion (incomplete)	2505

When the funds above referred to are insufficient to meet the demands of the Scholarship System based upon beneficiary aid, the scholarship fund is supplemented by an appropriation of the requisite amount from the general fund.

Some additional aid is furnished in the way of compensation to those students who are appointed by the Dean as monitors and by the Librarian as assistant librarians.

PRIZES

I. ORATORICAL PRIZES.

1. *The Benjamin F. Barge Prize.* Through the recent gift of \$2,500 by Mr. Benjamin F. Barge of Mauch Chunk, Pennsylvania, a graduate of Yale, but a member for one year of the Class of '57, Dartmouth, a *gold medal* of the value of \$100, is to be awarded annually "to that member of the Senior Class in any collegiate department or course, who, in competition therefor, shall write and pronounce in public an English oration in the best manner."

2. *Class of 1866 Prizes.* Two prizes, of *thirty* and *twenty* dollars respectively, annually contributed by WALDEMER OTIS, of New York City, in the name of the CLASS of 1866, are offered to the Junior and Sophomore Classes for excellence in Original Orations, to be contested for by two students from each of these classes.

3. *The Rollins Prizes.* The sum of *one hundred* dollars, annually contributed by E. W. and F. W. ROLLINS, is awarded in three prizes of *forty*, *thirty-five*, and *twenty-five* dollars respectively, for excellence in Declamation, to be contested for by two students from each of the three lower classes in the College.

4. *The Smith Prizes.* Two prizes, of *thirty* and *twenty* dollars respectively, given by PROFESSOR JUSTIN H. SMITH, are offered to the Senior Class for excellence in Extemporaneous Oratory, to be contested for by four students.

II. RHETORICAL PRIZES.

1. *The Grimes Prizes.* Two prizes, of *twenty-five* and *fifteen* dollars respectively, given by JAMES W. GRIMES, LL.D., of Iowa, are offered to the Senior Class for excellence in English Composition.

2. *The Lockwood Prizes.* Two prizes, of *twelve* and *eight* dollars respectively, given by LEGRAND LOCKWOOD, of New York, are offered to the Junior Class for excellence in English Composition.

3. *Pacific Coast Alumni Association Prize.* A prize of *fifteen* dollars, given by the Dartmouth Alumni Association of the Pacific Coast, is offered to the Sophomore Class for the best essay on a subject in American Literature.

III. LATIN PRIZES. Two prizes, of *twelve* and *eight* dollars respectively, established by the CLASS of 1846, are offered to the members of the Junior Class who shall maintain the best positions, and pass the best examinations in the studies of the Latin Department, including Latin Composition.

IV. GREEK PRIZES. Two prizes, of *twenty-five* and *fifteen* dollars respectively, established by the joint gift of EDWARD SPALDING, LL.D., and JOSIAH G. DAVIS, D.D., and named the *ATHERTON PRIZES*, are offered to the members of the Junior Class who shall maintain the best positions and pass the best examinations in the prescribed and elective studies of the Greek Department.

V. MATHEMATICAL PRIZES. Two prizes, of *twenty-five* and *fifteen* dollars respectively, given by GENERAL SYLVANUS THAYER, LL.D., of Braintree, Massachusetts, are offered to the members of the Sophomore Class for excellence in Analytic Geometry and the Differential and Integral Calculus.

VI. MODERN LANGUAGE PRIZE. By the will of THOMAS J. W. PRAY, M.D., of Dover, New Hampshire, the sum of *one thousand* dollars has been bequeathed to the College, "the income of which shall be given to the best scholar, throughout the entire collegiate course, in Modern Languages."

VII. PRIZE FOR GENERAL IMPROVEMENT. A prize of *forty* dollars, given by JAMES W. GRIMES, LL.D., is annually awarded to "that member of the Senior or Graduating Class, who, in the judgment of the College Faculty, has made the most satisfactory progress during his College course, taking into consideration his preparation for the course when he entered."

VIII. MECHANICAL DRAWING. Two prizes, of *fifteen* and *ten* dollars respectively, are offered by CHARLES R. SPALDING, B.S., of Chicago, to the members of the Junior Class (Chandler Scientific Course), for the best sets of Mechanical Drawings, comprising Iso-metrical, Tinted, and Descriptive Geometry Drawings, and Surveying Plots.

IX. GEOLOGICAL PRIZE. CLINTON H. MOORE, Class of 1874, of Butte, Montana, offers to the undergraduate students in Geology and Mineralogy for the present year a prize of *twenty* dollars, for the best essay upon a topic assigned by himself.

X. LIBRARY PRIZE. A prize of *fifty* dollars is offered, by an alumnus of the College, to that member of the Class of 1907 who shall, during Freshman year, make the best use of the College Library.

XI. PHILOSOPHICAL PRIZE. Hon. Joseph Story of Boston, offers for the present year a prize of *twenty* dollars "to be used for the publication of the best thesis on a subject in Philosophy, presented by any member of the Senior Class.

HONORS

COMMENCEMENT APPOINTMENTS

The speakers at Commencement are appointed by the Faculty on the basis of excellence in general scholarship for the entire College course.

RUFUS CHOATE SCHOLARS

Students who attain a rank of 92 are designated "Rufus Choate Scholars." The designation is entirely a term of honor and carries with it no pecuniary allowance. The assignment is made at the close of each year, and the names of such scholars are to be announced by the Dean, and published in the annual catalogue.

HONORS

For excellence in special departments of study, three grades of honors are awarded by the Faculty, — Honorable Mention, Honors, and Special Honors.

HONORABLE MENTION

Honorable Mention is awarded in the following courses of study to students who obtain an average rank of 92 per cent in the courses specified below for each department :

GREEK, for Courses 5a, 6a, and any two of the courses in the group 7 to 10.

LATIN, for Courses 1, 2, 3, 4; or for Courses 1, 2, 3 or 4, and 5 or 6.

ENGLISH, for Courses 1, 2, 3, and 4; or for Courses 1, 2, 9, and 10.

FRENCH, for any *four* of the following Courses : 1, 2, 3, 4, 5, 6, 11, 12.

GERMAN, for Courses 1, 2, 3, and 4; or for Courses 5, 6, 7, and 8.

MATHEMATICS, for Courses 1, 2, 4, 4a, 5, 7, 9, 10, and 10a; or for Courses

1a, 3, 6, 8, 11, and 12.

GRAPHICS, for Courses 1, 2, 3, and 4.

PHYSICS, for Courses 1, 2, and 3 or 5.

CHEMISTRY, for Courses 2, 3, 4, and 5 or 7.

ZÖÖLOGY, for courses in Biology 1, 1a, 2, 3, and 4.

BOTANY, for courses in Biology 1, 1a, 2, 5, and 6.

GEOLOGY, for Courses 2, 3, 5.

MINERALOGY, for Courses 1, 2, 3, and 4 or 5.

HISTORY, for Courses 1 and 2, and any two courses in Junior year.

ECONOMICS, for Courses 1, 2, and any other two courses.

POLITICAL SCIENCE, for Courses 2, 3, and 8.

POLITICAL SCIENCE, for Courses 3, 8, and Economics 1 and 2, and History 4 or 5.

PHILOSOPHY, for Courses 1, 2, 7, and 8.

The names of students receiving Honorable Mention are printed in the annual catalogue published next after the award.

HONORS

Honors are awarded in the following departments of study to students who maintain an average rank of 92 per cent in the courses specified below for each department, and who in addition pass with credit a special examination at the close of the work :

GREEK, Courses 15, 16 and one three-hour course in each Semester of Junior and Senior years, including Greek 20 and Archæology 3 or 4.

LATIN, one three-hour course in each Semester of Junior and Senior years.

ENGLISH, Courses 1, 2, and 3, 4, or 9, 10, and 5, 6, 15, 16.

FRENCH, Courses 9, 10, or 11, 12, and any two of the following courses : 13, 14, 15, 16, 17, 18, 19, 20.

GERMAN, any three of Courses 7, 8, 9, 11, 12, 13, 14, 15, 16, and Courses 19, 20.

MATHEMATICS, Courses 9, 10 and 10a, or 11 and 12, and 13, 14, 15, 16, 18.

GRAPHICS, all courses in Civil Engineering.

PHYSICS, Courses 3, 4, 5, and any one of Courses 6, 7, 8, 9, 10.

CHEMISTRY, Courses 2, 3, 4, 5, 7 or 8b, and either 6 or 8a.

ZÖÖLOGY, courses in Biology, 4, 7, 9, 10.

BOTANY, courses in Biology, 5, 6, and any two of the following courses : 7, 12, 15, 16.

MINERALOGY, Courses 1, 2, 3, 4, 5, and 6.

HISTORY, four courses, not included in Honorable Mention.

SOCIOLOGY, all the undergraduate courses.

PHILOSOPHY, Courses 4, 5, 12, 13.

SPECIAL HONORS

Special Honors are awarded in the departments specified below to those who fulfil the conditions mentioned hereafter.

Any student who attains the average rank of 85 per cent in the studies of Junior year, or who attains 92 per cent in any department, with an average of at least 80 per cent in all departments, in the studies of Sophomore and Junior years, will be allowed to become a candidate for Special Honors in any department in which he has attained a rank of 90 per cent. Students who are thus entitled to become candidates for Special Honors, and who wish to do so, must give written notice to that effect to the Dean of the Faculty and to the officer in charge of the department in which Special Honors are sought, on or before the 15th of October of their Senior year, and must fulfil the following conditions :

(a) They must take the elective courses indicated below in the department in which they seek Special Honors, and must also pursue such additional courses of study and collateral reading or investigation as shall be prescribed. At the close of the year they must pass a special examination covering their work in the department, including the courses of collateral reading or investigation presented for Special Honors, and designed to test the range and accuracy of their work.

(b) They must also, if required, present theses satisfactory to a committee appointed by the Faculty, embodying the result of their special study. The subjects of theses shall be announced not later than March 1, and the theses must be handed to the Dean of the Faculty not later than June 10 of Senior year.

(c) They must maintain their general standard of scholarship, and if their average rank falls below 80, or if it falls below 70 in any one department in any Semester, they will be required to discontinue their work for Special Honors.

(d) No student will be allowed to become a candidate for Special Honors in more than one subject, without a special vote of the Faculty.

Special Honors may be sought in the following departments :

GREEK — Continuous work in Greek throughout the course, covering all Greek courses of Freshman year, two courses in Sophomore year, one of which must be a three-hour course, and an average of four hours a week in

Junior and Senior years. This work must include Greek 15, 16 and 20 and Archæology 3 or 4. The candidate will do additional work, equivalent to at least one three-hour course for a year, to be assigned at the opening of Senior year; he will be examined on this work and on his general attainments in Greek at the end of Senior year. A thesis is required.

LATIN — Work in the elective courses of Junior and Senior years amounting to four hours a week; an examination on the work of some Latin author not covered in the course, and also a general examination upon Latin Literature, with more special reference to the period to which the particular author studied belonged. A thesis is required.

ANCIENT CLASSICS — Courses in Greek and Latin covering an average in each of three hours a week in Junior and Senior years. Special study in one of the two languages amounting to the work of a three-hour course for Senior year will be required, and the final examination will cover this study, as well as the general work in the two languages. A thesis in connection with the subject of special study may be required.

ENGLISH — Eight courses, with examinations on all courses of Junior and Senior years, and upon two authors outside the course, amounting to three hours for Senior year. A thesis will be required.

FRENCH — Any six of the following courses: 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20. A thesis will be required.

GERMAN — Courses 15, 16 and any two of Courses 7, 8, 9, 11, 12, 13, 14, and any three of Courses 17, 18, 19, 20, 21, 22, 24, with collateral reading and study. A thesis will be required.

MATHEMATICS — All courses, and advanced work in Calculus, and its applications. A thesis may be required.

PHYSICS — Courses 1, 2, 3, 4, 5, and any three of Courses 6, 7, 8, 9, 10, with the solution of some simple research problem described in a thesis.

CHEMISTRY — Courses 2, 3, 4, 5, 6, 7, 8a, and 12, 15, 16, or corresponding courses. A thesis may be required.

ZOOLOGY — Courses in Biology 1, 1a, 2, 3, 4, 7, 9, 10, 18, and either 5 or 6, with special laboratory work and collateral reading amounting to a minimum of 3 hours per week for Senior year.

BOTANY — Courses in Biology 1, 1a, 2, 5, 6, 7, 12, 15, 16, and either Courses 3 or 4, with collateral reading and such additional work as may be indicated by the instructor, amounting to a minimum of three hours per week for Senior year. A thesis may be required.

MINERALOGY — Courses 1, 2, 3, 4, 5 and 6, together with special investigation of economic collections, the theories of the formation and grouping of complex silicates, and the application of the principles of petrography to

material of an assigned area. The whole must amount to a minimum of three hours per week for Senior year. A thesis may be required.

HISTORY—Candidates must take all elective courses offered by the department, together with additional courses of study, collateral reading, and investigation. At the close of the year they must pass a special examination covering the work of the department and the additional work.

ECONOMICS—All courses, with collateral reading and study amounting to three hours a week for Senior year.

POLITICAL SCIENCE—Courses, 3, 4, 5, 6, with collateral reading and study amounting to three hours a week for Senior year.

PHILOSOPHY—Candidates must take at least eight courses, and do original, critical work in Greek philosophy, or in German philosophy. Thesis will be required.

Any student who has an average rank for his entire college course of 90 per cent, or who has received Honorable Mention in two departments and Honors in one department, or who has received Honorable Mention in one department and Special Honors in another, shall receive a degree *cum laude*.

Any student who has an average rank for his entire college course of 92 per cent, or who has received Honorable Mention and Honors in two departments, or who has received them in one department together with Special Honors in another, shall receive a degree *magna cum laude*.

Any student who has an average rank for his entire college course of 94 per cent, or who has received Honorable Mention and Honors in two departments, together with Special Honors in any department, shall receive a degree *summa cum laude*.

The names of recipients of Honors are printed on the Commencement programme and in the annual catalogue.

DEGREES

The degrees of Bachelor of Arts, Bachelor of Letters, and Bachelor of Science are conferred by the Board of Trustees, on the recommendation of the Faculty, upon those who have duly completed the Classical, Latin-Scientific, and Chandler Scientific courses, respectively. For degrees with Honors, see page 197.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy will be conferred under the following conditions :

(1) The degree of Master of Arts will be conferred upon Bachelors of Arts and Bachelors of Letters of the College of at least one year's standing who shall have pursued in residence at the College, or, provided the approval of the Faculty shall have been first obtained, in the graduate department of any other College or University, for one full year a course of graduate study approved by the Committee on Graduate Instruction as affording suitable preparation for that degree, and shall have completed and passed an examination upon such course of study with high credit and presented a satisfactory thesis.

The study approved by the Committee on Graduate Instruction for the degree of Master of Arts may consist of:

(a) Courses of instruction of advanced grade, four such courses ordinarily being required to constitute a full year's work, or the work may be partly or wholly made up of

(b) Research or special study, either in connection with, or outside the courses of instruction, carried on under the direction, or with the criticism and approval of the head of the appropriate department.

The Master's degree is deemed the appropriate award for graduate students who have shown marked proficiency in liberal studies. In every case the program of work approved for candidates for that

degree must form a consistent plan of study and it ordinarily will be pursued in more than one department. No work which is to be counted for any other degree, except that of Doctor of Philosophy, will be approved as a constituent part of the course of study for the degree of Master of Arts.

(2) The degree of Master of Arts will also be conferred upon Bachelors of Arts and Bachelors of Letters of the College of at least three years' standing who shall have pursued while not in residence at any College or University for one full year, a course of graduate study approved by the Committee on Graduate Instruction, substantially equivalent in kind, grade, and amount to that prescribed for resident candidates for that degree, and shall have completed and passed an examination upon such course of study with high credit and presented a satisfactory thesis.

(3) The degree of Master of Science will be conferred upon Bachelors of Science of the College under the same conditions that are prescribed for the degree of Master of Arts.

The Faculty at its discretion may select one person from the candidates for the Master's degree in any year, to read and to defend his thesis in public at Commencement.

(4) Persons who have received the Bachelor's degree in any other College, whose requirements for that degree are equal to those of this College, may be recommended for the corresponding Master's degree on the same conditions that are prescribed for graduates of this College, except that the specified course of liberal, non-professional study, of not less than one year, must be pursued in residence at this College.

(5) Resident candidates for the degrees of Master of Arts or Master of Science shall be charged the same tuition as undergraduates. They shall be charged also a fee of ten dollars for the degree. Non-resident candidates for the same degree shall be charged a fee of ten dollars for registration and of twenty-five dollars for examination and verification of thesis and for the degree.

(6) The degree of Doctor of Philosophy is at present offered in the departments of Biology, Geology, and Sociology only. Whenever

other departments, singly or in groups, have sufficient teaching force and equipment to offer courses leading to this degree, announcement will be made in the catalogue. Meanwhile, graduates of the College who wish to become candidates in departments not mentioned above, are advised to seek the degree at graduate schools which are prepared to confer it.

(7) A candidate for the degree of Doctor of Philosophy must have received a Bachelor's degree from this College or from a College whose degrees are accepted as equivalent to its own, and he must satisfy the Committee on Graduate Instruction that he is properly prepared for the graduate work in the department in which he is an applicant for a degree. He must pursue graduate studies for at least three years after taking his Bachelor's degree. Two of these years must be in residence at this College. The other year may be spent in graduate study at an approved institution.

(8) Graduates of this College who have received the degree of Master of Arts or Master of Science under the rules in force since 1894, and in courses which form a part of the work announced by the department as leading to the degree of Doctor of Philosophy, may count this work as a year toward the degree.

(9) Candidates for the degree of Doctor of Philosophy are required to present themselves for examination in three related subjects, a major and two minor. The requirements in each minor subject shall not be less than all the required and elective undergraduate courses in that subject, or their equivalent. The graduate work in the major subject will consist largely of original investigation of a definite problem, the results of which are to be embodied in a thesis that shall contain some original contribution to knowledge, together with an historical and critical summary of the pertinent literature.

(10) Candidates for the degree of Doctor of Philosophy are charged the same tuition as undergraduates. They are also charged a fee of twenty-five dollars for the degree.

SPECIAL REGULATIONS

(1) Applicants for an advanced degree, whether resident or non-resident, are required to announce to the President on a blank which will be furnished by the Dean of the Faculty on application, as early as the first of October of each year, the particular branches of study to which they wish to give attention during the year, together with all needed statistics and facts. The supervision of their work will then be entrusted to the Committee on Graduate Instruction.

(2) The subject of the thesis must be announced to the President as early as the first of February of the college year in which the applicant expects to take the degree.

(3) The thesis must be completed and put into the hands of the chairman of the Committee on Graduate Instruction as early as the first of June.

(4) Every non-resident candidate must send a written report of the progress of his work to this committee through the head of the department at least twice a year, in December and in June. Any non-resident candidate who shall fail to make such report for a period of two years shall be deemed thereby to have ceased to be a candidate for the degree for which he was enrolled.

PRIZES, HONORS, AND DEGREES
AWARDED IN 1903

PRIZES

Grimes — English Composition — Seniors

First Prize — STANWOOD COBB.

Second Prize — NO AWARD.

Lockwood — English Composition — Juniors

First Prize — WILLIAM AIKEN KNEELAND.

Second Prize — WILLIAM HARVEY SLAYTON.

*Pacific Coast Alumni Association — American Literature —
Sophomores*

EUGENE RICHARD MUSGROVE.

Journalistic — Seniors, Juniors, Sophomores, and Freshmen.

EUGENE RICHARD MUSGROVE.

Rollins — Oratory — Juniors, Sophomores, and Freshmen

First Prize — MICHAEL STEPHEN O'BRIEN.

Second Prize — CHARLES GILBERT MILHAM.

Third Prize — HENRY MORGAN HOBART.

Smith — Extemporaneous Debate — Seniors

First Prize — SHERMAN ARNOLD MURPHY

Second Prize — HAROLD MINER HESS.

Class of 1866 — Original Orations — Juniors and Sophomores

First Prize — HERBERT McKENNIS.

Second Prize — ALBERT THOMAS MELVIN.

Barge Gold Medal — Original Orations — Seniors

SHERMAN ARNOLD MURPHY.

PRIZES, HONORS, AND DEGREES 203

Class of 1846 — Latin — Juniors

First Prize — NO AWARD.

Second Prize — NO AWARD.

Atherton — Greek — Juniors

First Prize — NO AWARD.

Second Prize — PAUL GORDON FAVOR.

Thayer — Mathematics — Sophomores

First Prize — FREDERICK CHASE.

Second Prize — WINFIELD SUPPLY BARNEY.

Pray — Modern Languages — Seniors

French — FRANKLIN CROSSE.

German — FRANKLIN CROSSE.

Grimes — General Improvement — Seniors

WALTER HARVEY TOBEY.

*Spalding — Mechanical Drawing — Juniors, Chandler Scientific
Course*

First Prize — MORTON OWEN WITHEY.

Second Prize — HARRISON GEORGE ROBY.

Moore — Geology — Seniors

ALDIS WILLARD LOVELL.

HONORS

HENRY ELIJAH PARKER FELLOWSHIP

Class of 1901 — Arthur Ela Buck.

RUFUS CHOATE SCHOLARS

SENIORS — Stanwood Cobb, Ernest Rutherford Groves, William Hand Woolverton.

JUNIORS — Arthur Isaac Charron, Harry Woodbury Chase, Herbert McKennis, Jerome Meyers, John Henry Watson, Jr.

SOPHOMORES — Shirley Beck Cunningham, Edmund Ezra Day, Robert Crawford Falconer, Chester Newell Moore.

FRESHMEN — Thurlow Marshall Gordon.

SPECIAL HONORS

SENIORS

ENGLISH — Stanwood Cobb.

GERMAN — Franklin Crosse.

PHILOSOPHY — Stanwood Cobb, Ernest Rutherford Groves.

HONORS

SENIORS

PHYSICS — Henry Erich Kasemere Ruppel.

CHEMISTRY — Henry Erich Kasemere Ruppel.

MINERALOGY — Otis Pope Mudge.

PHILOSOPHY — Ernest Rutherford Groves.

HONORABLE MENTION

SENIORS

PHYSICS — Harold Elno Smith.

CHEMISTRY — Henry Erich Kasemere Ruppel.

ECONOMICS — Victor Macomber Cutter.

PHILOSOPHY — Ernest Rutherford Groves.

JUNIORS

PHYSICS — Arthur Isaac Charron, Henry Munroe Hall.

ZOOLOGY — David Emerson Ford, Albert Lyon Hill, Jerome Meyers.

BOTANY — David Emerson Ford.

SOPHOMORES

GREEK — John Hoffman Dunlap, Robert Crawford Falconer.

ENGLISH — Robert Crawford Falconer, John Albert Laing.

FRENCH — Winfield Supply Barney, John Hugh Furfey.

GERMAN — John Hoffman Dunlap, Charles Frederick Eichenauer, John Hinsdale Neely.

MATHEMATICS — Winfield Supply Barney.

DEGREES CONFERRED IN COURSE

BACHELORS OF ARTS

Abdian, Gregory Nazareth
Avery, Maurice Hussey
Baker, Fred W
Bairrows, Samuel Fay
Batchelder, Nathaniel Hayward
Bennett, Hamlin Perley
Bergengren, Roy Frederick
Brown, Phillip Lowell
Bunker, Charles Clinton
Burbeck, Edward Kimball
Chapin, William Sanders
Chedel, Charles Brigham
†Cobb, Stanwood
Cohen, Arthur Joseph
Conner, William Hayden
Creamer, James Allyn
Cresswell, James Baxter
Crosse, Franklin
Crowell, John
Cushing, Henry Dwight
Davis, Robert Meacham
Decatur, Arthur Garfield
Delano, Henry Ward
Dunn, Morley Knight
Erwin, Clayton Lemuel
French, Morton Bowles
Grant, William West, Jr.
†Groves, Ernest Rutherford
Hall, Charles Taber
Hall, Forrest Joslin
Haney, Lewis Henry
Hanlon, Arthur Edward
Harley, George Washington

† Magna cum laude.

Hausmann, Daniel Andrew
Hinckley, Daniel Roy
Howard, Preston Wilbar
Jackson, Andrew
Kelley, Herbert Lester
Kenerson, Edward Hibbard
Kennedy, John Henry
Keyes, Ralph Preble
Kidger, Horace
Kimball, Leigh Wadsworth
Lovell, Aldis Willard
Luce, Charles Lyman
Lyman, Timothy
McElroy, John Hale
McGowan, Robert
MacLennan, John William
McVicar, Joseph Ambrose
Morrison, Clarence Edwin
Mudge, Otis Pope
Neal, Cleland Richardson
Neal, Ralph Worrick
O'Malley, Michael Henry
Palmer, Albert Rollins
Patch, George William
Pierpont, Henry Warner
Place, Victor Morton
Pratt, Alton Gerard
Rice, Winfield Lawrence
Rowe, Otis Arthur
†Ruppel, Henry Erich Kasemere
Safford, Henry Gates
Sayward, Henry Morton
Schlatter, Edward Bunker

† Summa cum laude.

Skinner, Azro Karl
Smith, Albert Edward
Smith, Harold Elno
Smith, James Francis
Smith, Orvil Weaver
Speare, Guy Edwin
Stevens, William Lyman
Swan, Laurence Clarke
Thomas, Philip Williams
Thorpe, Jesse Leroy

Tobey, Walter Harvey
Wadham, John Pray
Warner, Southard Parker
Watson, William Harry
Whelden, Perley Eaton
Whipple, Dana Bryden
Williams, Lester Alonzo
Wilson, Earle Elwin
Woolverton, William Hand

Deshon, George Durfee, '83
Parker, Charles Irving, '63

BACHELORS OF LETTERS

Bradley, David Emery, Jr.
Brown, Ernest Lee
Brown, Marcus Richard
Bullard, Harold Ariel
Colton, Chauncey Corey
Craig, Willis Parker
Cutter, Victor Macomber
Douglass, Douglass Burns
Farmer, Allen Brown

Follett, Herbert Champion
Hale, Floyd Orlin
Hartshorn, Willard LaMonte
Howes, Clarence Gray
Lewers, Ralph Edward
McManus, James William
Murphy, Sherman Arnold
Sleicher, George Ingalls
Wentworth, John Paul

BACHELORS OF SCIENCE

Brown, Raymond Warren
Burnham, Kingsley Allen
Comstock, Harold Dearborn
Cornwell, William Eames
Drown, Frank Steel
Farley, Carl Howard
Geraghty, James Michael
Hadley, Chester Barton
Haugan, Henry Alexander
Hess, Harold Miner
Hoke, George Edward

Johnson, Charles Edward
McClary, Nelson Ford
Mahoney, Jeremiah Francis
Matteson Byron Winfield
Morrison, Charles Franklin
Morse, Harold Marston
Osgood, Fred Wheeler
Paul, Carroll
Perham, Frank Stuart
Pillsbury, Ralph William
Porter, Henry George

Reed, George Albert	Smith, Sherman
Ropes, Howard Leon	Walther, Julius Bernhardt
Scudder, Harold Hungerford	Wentworth, Franklin Wesley
Worthen, Carl Burpee	

Davis, Carroll Worthen '02	Walker, John '02
Eldred, Byron E '96	

MASTERS OF COMMERCIAL SCIENCE

Dalrymple, Albert Herman, A.B.	Fitzgerald, Amos Harold, B.L.
Dorr, Percy Orrin, A.B.	French, Irving Joseph, B.L.
Drake, James Frank, A.B.	Fullington, Christopher Chadwick, B.L.

CIVIL ENGINEERS

Davis, Carroll Worthen, B.S.	Richmond, Harold Samuel, B.C.E.
Doane, Royal Belden, B.S.	Sampson, George Arthur, B.S.
Farr, Leslie Boynton, B.S.	Smith, Albert, B.S.
Leahy, Maurice Joseph, B.S.	Stanton, Fred Caswell, B.S.
Perkins, Locke McIndoe, B.S.	Tozzer, Arthur Clarence, B.S.
Plumer, Harold Edward, B.S.	Walker, John, B.S.
Porter, John Endicott, B.S.	Winslow, Arthur Ellsworth, C.E.

DOCTORS OF MEDICINE

Butterfield, Clarence Egbert, B.L.	Lord, Frederic Pomeroy, A.B.
Clark, William Edward, B.L.	Mayes, Matthew Taylor
Dolloff, Charles Hall, B.L.	Stickney, William, B.L.
Downing, Arthur Taylor, A.B.	Wallace Arthur Lowell, A.B.
Dutton, Julius Maltby, A.B.	Warden, John Bachop, B.S.
Gates, George Cushman Coleman	Woodman, James Brown, A.B.
Hopkins, Arthur Warren, A.B.	

O'Donnell, John Keirn '98

MASTERS OF ARTS

Benezet, Louis Paul, A.B. (1899)
Field, Arthur Sargent, A.B. (1902)
Fowler, Clayton Holt, A.B. (1902)
Morse, Kenneth Lee, A.B. (1902)
Pattee, George Kynett, A.B. (1902).
Phelps, Clarence Lewis, A.B. (1901)
Winslow, Asa Irving, A.B. (1902)

HONORARY DEGREES

MASTERS OF ARTS

Winston Churchill (U. S. N. A., 1894) Corcellus Hubbard Hackett
James Eugene Klock

DOCTOR OF SCIENCE

Ernest Fox Nichols (Kansas Agr'l. Coll., 1888)

DOCTORS OF DIVINITY

Sidney Lewis Gulick (1883) Silvanus Hayward (1853)

DOCTORS OF LAWS

Alfred Thayer Mahan (U. S. N. A., 1859) Edward Tuck (1862)
Charles Augustus Young (1853)
Henry Albert Morrill (1860)

THE AMOS TUCK SCHOOL OF ADMIN-
ISTRATION AND FINANCE

CALENDAR

1903

September 24 Year began — Thursday morning.

November 26 Thanksgiving Day — Holiday.

December 23 to Jan'y 5, 1904, Christmas recess.

1904

Jan'y 30 to Feb. 9 . . . Examinations for First Year Men.

April 1 to 13 Easter Recess for First Year Men.

April 27 Second year ends.

June 9 to 17 Examinations for First Year Men.

OFFICE HOURS

SECRETARY — Frank Haigh Dixon — Hubbard House, 1.30 to 2 P. M.
each week day except Saturday.

THE AMOS TUCK SCHOOL OF ADMINIS- TRATION AND FINANCE

FACULTY

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

FRANK HAIGH DIXON, PH.D., SECRETARY *and Professor*
of Economics. 24 Occom Ridge.
(Transportation and Commerce.)

JAMES FAIRBANKS COLBY, A.M., LL.D., *Parker Professor*
of Law and Political Science. 2 Elm St.
(Constitutional and International Law.)

JUSTIN HARVEY SMITH, A.M., *Professor of Modern History.*
The Hanover Inn.
(Modern History and Diplomacy.)

DAVID COLLIN WELLS, A.B., *Professor of Sociology.*
20 N. Main St.
(Sociology and Labor Problems.)

GEORGE RAY WICKER, PH.D., *Assistant Professor of*
Economics. 20 Occom Ridge.
(Labor and Statistics.)

EDGAR VAN DEUSEN, A.M., *Instructor in Public and Private*
Finance. 25 S. Main St.
(Banking and Investments.)

SIDNEY BRADSHAW FAY, PH.D., *Assistant Professor of*
History. 33 College St.
(English History.)

PRESCOTT ORDE SKINNER, A.M., *Instructor in the Romance*
Languages. 28 N. Main St.
(Spanish Composition and Conversation.)

HARLOW STAFFORD PERSON, PH.D., *Instructor in Commerce and Industry.* 15 N. Park St.

(Commercial Geography and Technique of Industry.)

HAROLD MARTIN BOWMAN, LL.B., PH.D., *Instructor in Political Science.* The Hanover Inn.

(Commercial Law.)

WILLIAM HENRY MURRAY, A.B., *Assistant in French and German.* Hubbard House.

(French and German Composition and Conversation.)

LECTURERS AND INSTRUCTORS FOR THE YEAR
1903-1904

ALFRED LAWRENCE RIPLEY, A.M., Vice-President State National Bank, Boston, Mass.
Stock and Money Markets.

JAMES LOGAN, General Manager United States Envelope Company, Worcester, Mass.
Business Methods.

ULYSSES D EDDY, Export Merchant, New York City.
South American Trade.

FRANK SHERWIN STREETER, A.B., of the Concord, N. H., Bar.
Corporation Law and Administration.

JOSEPH AREND DEBOER, A.M., President of the National Life Insurance Company, Montpelier, Vt.
Theory and Practice of Life Insurance.

SIMON NEWTON DEXTER NORTH, A.M., Director of the Census, Washington, D. C.
Textile Fibres and Manufactures.

JAMES SHIRLEY EATON, A.M., Associate Editor Wall Street Journal, New York City.
Railroad Methods and Administration.

EDWARD PARKHURST COMINS, Public Accountant, Boston, Mass.
Accounting and Auditing.

EDWIN JULIUS BARTLETT, A.M., M.D., New Hampshire Professor
of Chemistry, Dartmouth College.
Economic Chemistry.

WILLIAM PATTEN, PH.D., Professor of Zoölogy, Dartmouth College.
Economic Biology.

GORDON FERRIE HULL, PH.D., Appleton Professor of Physics,
Dartmouth College.
Economic Physics.

In addition to the courses of lectures, single lectures by specialists
will be introduced from time to time.

STUDENTS

SECOND YEAR

Name	Residence	Room
Cutter, Victor Macomber	Lowell, Mass.	7 Hallgarten

FIRST YEAR

Austin, David Sands, 2d	North Berwick, Me.	Dragon House
Bartlett, Edwin Rice	Hanover, N. H.	8 W Wheelock St.
Blanchard, Phillips Staples	Peacham, Vt.	Φ Δ Θ House
Blair, Hugh	Dorchester, Mass.	10 Sanborn
Brayton, Bascom Backus	Hartford, N. Y.	5 College St.
Edgerly, Ferdinand Boshier	Manchester, N. H.	7 Dartmouth
Fauteaux, Louis Dearborn	Hanover, N. H.	10 Sanborn
Fiske, Robert Chester	Hyde Park, Mass.	24 Richardson
Foster, Amos Parker	Keene, N. H.	C. and G. House
Gale, Arthur Pinkham	Jackson, N. H.	C. and G. House
Hastings, Alfred Bryant	Nashua, N. H.	Δ T Δ House
Leveroni, Louis Edward	Keene, N. H.	13 Sanborn
Logan, Donald Brigham	Worcester, Mass.	Dragon House

McKnight, Charles Francis	<i>Hiawatha, Kan.</i>	K K K House
Maynard, James Tyler, Jr.	<i>Bellows Falls, Vt.</i>	C. and G. House
*Root, Frederick James	<i>Chicago, Ill.</i>	20 S. Main St
Whittemore, Wilfred Doloff	<i>Ashton, R. I.</i>	12 Fayerweather
Woodbridge, Charles Kingsley	<i>Somerville, Mass.</i>	Φ Δ Θ House

* Special Course.

Under the terms of the Amos Tuck Endowment Fund, the gift by Mr. Edward Tuck of the Class of 1862, of the sum of three hundred thousand dollars as a memorial to his father, the Honorable Amos Tuck of the Class of 1835, and a Trustee of the College from 1857 to 1866, especial provision was made for the "establishment of additional professorships within the college proper or in graduate departments." In accordance with this provision of the endowment fund for additional instruction in undergraduate and graduate courses, and with the direct approval of the donor, the Trustees of Dartmouth College have created the Amos Tuck School of Administration and Finance.

By a second gift of one hundred thousand dollars Mr. Tuck has made provision for the erection and maintenance of a building for the uses of the School. The contract calls for the completion of the building March 1, 1904.

AIM OF THE SCHOOL

There is an increasing demand on the part of the business community for trained service. The Tuck School aims to meet this demand so far as possible. It recognizes clearly its limitations. It does not presume to create the genius for executive position. It does not attempt to teach the details of any man's business. These can be learned most quickly and effectively on the ground. But it does recognize that the elaborate organization and exacting requirements of modern business demand a preliminary training for the great majority of those entering it and that many businesses have accumulated a fund of experience that may be drawn upon, shaped into

scientific form, and made the basis of instruction in business practice. The graduate of the School will still expect to begin at the bottom, but he may be able to cover the first steps more rapidly and advance to positions otherwise beyond his reach.

The assertion often made that college unfits men for business is in part true. It has sprung, however, quite as much from the inability or unwillingness of the college graduate to accustom himself quickly to the rigid discipline and the rapid pace of business life, as from the lack of such preparation as is directly applicable to the work in hand. In the provision that the work of the Tuck School shall be graduate in character, both of these points have been held in mind. In the first place, the School rests its claim for recognition upon the proposition that business training, to be really effective in fitting men for the higher administrative posts, must be based upon the thorough education of the man through the medium of a complete college course. The sound method seems to be to educate the man first and the business man afterwards. In the second place, by the requirement of graduate work, the student, freed from undergraduate associations and obligations, can be subjected to a course of training more rigid than the College can enforce, and be prepared by his experience to sympathize with the business discipline into which he is to enter. The School, in short, proposes to lay quite as much stress upon the disciplinary training that will create a proper business attitude, as upon the educational equipment of the individual.

The course comprises two years of work. The earlier part is carefully planned with a view to securing the most effective approach to the practical training of the final year. Historical, economic, sociological, and modern language courses of an advanced order are given, and freedom of election granted sufficient to insure consistency and natural development in the work of the entire course. The second year, both in grade of work and method of treatment, is quite distinct. It aims to encourage independence of thought and to foster and develop natural business inclinations. Not at all inconsistent with the high grade of scholarship required, is the thoroughly practical and unacademic character of the work.

It is proposed to train men for the more important phases of business activity which concern the distributive processes as distinguished from those technical productive processes that relate to manufacturing in its broader sense and for which the technological schools have provided instruction. The work of the resident faculty is supple-

mented by the lectures of specialists in their particular fields. Various phases of study are materially strengthened by conferences with business men, who give the practical touch and bring the students into contact with actual affairs.

It will be recognized that the scheme of organization of the School makes it possible, as cannot be the case in a general undergraduate course in Commerce or Finance, to give the man his broad general basis of business education and then impose upon this, training for a specific career. It is the purpose of the School to direct its work more and more toward meeting the demand for men in specific businesses. These courses, so far as they are at present developed, include :

(1) **BANKING, BROKERAGE, and INVESTMENTS.** This work is in charge of a specialist of practical experience in the work covered, and the School is prepared to fit men thoroughly for the financial field. The demand for men with this training is a steady one.

(2) **TRANSPORTATION, especially RAILROAD SERVICE.** The changes now taking place in the organization of railroads are creating a demand for men who can fill positions of responsibility. The Accounting departments are especially concerned to secure the services of trained men. Courses in the School are offered with a view to meeting this demand.

(3) **INSURANCE.** Life Insurance companies have been among the first to recognize the value of trained service, and are offering attractive inducements to college men. The graduates of the School will have a clear advantage over the ordinary college graduate. It is the intention especially to develop courses that will train men for actuarial work in which the opportunities are peculiarly attractive to men with mathematical inclinations.

(4) **COMMERCE.** This general title includes the courses designed for those who enter upon mercantile or manufacturing careers as well as those who engage in foreign trade. They involve a thorough study of the technique of industry, sources of materials, costs, methods of handling, and markets, as well as the details of foreign trade and the commercial policies of the various nations. For those who are to enter specific manufacturing industries, pertinent courses in science will be prescribed to be taken in the College. It is very desirable that such students consult the Secretary early in their College course in order that the scientific courses may be undertaken before the pressure of Tuck School work begins.

In the same field training may be secured for the consular service, although no great stress will be laid upon it until fitness receives recognition in the Consular Service of the United States.

(5) JOURNALISM. Recognizing that the most valuable training for a journalistic career is a sound knowledge of History, Economics, and the activities of modern business, the School is prepared to train men for this work, a wider range of electives being permitted to such men if it seems desirable.

Finally, there are a number of subjects offered which are of general value to all students and which form the basis of their work. These include :

(1) ACCOUNTING and AUDITING. This work begins with an elementary practical course in Accounting in the first year. This is followed by a more advanced and detailed course in the second year, which treats of the modern methods of accounting practised by the large manufacturing industries, investment brokers, and others. It investigates the problem of uniform municipal accounting, modern devices such as the card system, and includes a careful study of cost keeping and of the principles of auditing. In this connection should be mentioned courses in commercial mathematics and statistics.

(2) BUSINESS PROCEDURE. This designation covers a number of courses intended to acquaint men with the general problems of business. It includes commercial law ; corporate administration, with the powers and duties of officers and directors and the discussion of the practical administration of corporate business ; business diplomacy, involving the relation of employers to their employees and to each other ; lectures on the relation of science to business which aim to present the points of contact.

(3) LANGUAGE. The foreign languages are recognized as desirable and in many cases essential, especially in businesses which are developing international relationships, and courses are offered in German, French, and Spanish with special reference to the needs of business men.

CONDITIONS OF ADMISSION

The School offers a two years' graduate course which is open to students under the following provisions:—

1. The School is open to those who have a bachelor's degree, provided their undergraduate work includes such preparation as is deemed adequate for entrance upon the work of the School. This preparation is in general as follows:—

a. The usual college requirements in mathematics, the sciences, literature, and philosophy.

b. (1) Modern Languages. — The elementary courses in two of the three languages of German, French, and Spanish.

(2) English. — Two years' work in English Composition or Argumentation.

c. (1) History. — General History of Europe, representing one year's work.

(2) Economics. — Elements of Economics, Industrial History, and the Elements of Commercial Geography.

(3) One course in Sociology or in Political Science or an additional course in History.

2. *a.* Students who have pursued in their undergraduate curriculum work which is equivalent to that pursued in the first year of the School, will, after receiving their bachelor's degree, be registered in the second year.

b. Students of Dartmouth College of three years' undergraduate standing, who have fulfilled the requirements for entrance, may elect the first year courses of the school for their work of Senior year. At the close of the year they may formally graduate from the College with the bachelor's degree for which they entered. After a year of graduate work in the Tuck School they become eligible for the degree conferred by the School.

3. STUDENTS FROM OTHER COLLEGES entering the Senior year of Dartmouth College, to avail themselves of the privilege offered in § 2 *b*, or who enter with a bachelor's degree under the provisions of § 1, must present, with their certificate of transfer or their degree, a record of standing which shall meet the requirements of § 5.

4. SPECIAL STUDENTS. — Applicants who may show fitness to pursue particular courses, may be received as special students in the

second year and will be given certification for work actually accomplished, but will not be given the degree of the School. It is understood that this does not apply to students pursuing undergraduate work in Dartmouth College, except in cases where the amount of such work not yet completed is so small as not to interfere with the satisfactory pursuit of the work of the School.

5. **STANDING.** — In order to enter the first year of the School, students are required to have had a general average standing of not less than 75% in the branches required for admission, and not to have fallen short of 75% in more than two of those branches, nor below 60% in any one of them. While recognizing the necessity of establishing an academic standard as a general basis of judgment in determining the fitness of students for entrance, the Faculty will always reserve the right to make exceptions in favor of men who have shown in other ways exceptional ability to do the work of the School.

6. **APPLICATION.** — Formal application for admission must be made upon a blank provided for that purpose. This application must be approved by the President and the Secretary of the School before the applicant can be admitted.

ARRANGEMENT OF STUDIES

During the first year, students are required to elect an average of eighteen hours each Semester. A portion of the work consists of courses given to First Year Men independently of those offered to Seniors in Dartmouth College. These courses include Accounting and Commercial Mathematics, Industries of the United States, French and German Composition and Conversation. The remainder of the work is made up of electives chosen under the direction of the Secretary in the departments of History, Political Science, Economics and Sociology. The separation of a part of the work of the first year from the Senior work in the College is the beginning of a movement which may in the near future result in making the first year work of the School entirely independent.

The work of the second year permits of wider choice within the range of the following subjects: Modern Languages continued, Modern History, Diplomacy and Politics, Corporate Administration, Accounting and Auditing, Statistics, Business Organization and Pro-

cedure, Commercial Law, Commerce, Rail and Water Transportation, Insurance, Practical Banking, Brokerage, and Investments. The length of the courses is determined by the character of the subject and not upon an arbitrary Semester basis. Students must hold themselves in readiness to crowd the work of any course into as short a space of time as the convenience of the individual instructor requires. Election of work for this year must be made under the direction of the Secretary.

PRELIMINARY COURSES REQUIRED FOR ENTRANCE

Courses in Dartmouth College or elsewhere regarded as equivalents, will be accepted in place of the courses here given.

ECONOMICS

1 and 2. *Elementary Economics.*

Professor WICKER and

Mr. HANEY.

First and Second Semesters, 2 hrs.

In these two courses, which together form a one year course, the attempt will be made to give the student the currently accepted scientific analysis of modern industrial society. It will seek to accomplish a threefold purpose: to teach fundamental principles in such a way that they may be applied to the duties of enlightened citizenship; to open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to offer to those intending to adopt business as a profession, such general rules and principles as are contributed to business by the science of Economics.

While the course concerns itself primarily with economic theory, with the most general principles of consumption, production, exchange, and distribution, the theory itself will be developed from and illustrated by a study of actual economic processes and conditions. Thus due attention will be paid to the problems of money and banking, the tariff, monopoly, labor, etc., in such a general way that later intensive study of these problems may be based upon the foundations thus laid.

3. *Economic History of the Nineteenth Century.*

Professor DIXON and Mr. HANEY.

First Semester, 3 hrs.

Sketch of the development of English industry and commerce to the eighteenth century, followed by a more careful study of the Industrial Revolution. With this as a background, the development of the United States, both industrial and commercial, will be treated by means of lectures, the relation of economic to social and political factors being constantly noted. The following are some of the topics considered: the land policy of the government, the movement of population, and the development of agricultural resources both North and South, including the economic effects of slavery; the origin and development of the extractive and manufacturing industries; transportation development, including canals, turnpikes, and railways; the history of the tariff and our present commercial policy, involving a consideration of the policy of European countries. The economic development of countries other than the United States will be treated by means of a text-book.

4. *Elements of Commercial Geography.*

Dr. PERSON.

Second Semester, 3 hrs.

This course aims first to bring out the general principles of the relationship between man's environment and his industrial life, and then to apply these principles by taking up a study of the various countries as producers and sellers of goods and as markets. While all important regions are considered in an elementary way, a more detailed study is given to the older industrial countries. Among the facts considered are the following: physical conditions, geology, soils, rivers, climate; the nature and distribution of extractive and of manufacturing industries; imports and exports; industrial aptitudes; business methods; and national peculiarities that determine the particular classes of goods demanded.

HISTORY

1. *Mediæval and Modern European History.*

Professors FOSTER and FAY.

First Semester, 3 hrs.

Courses numbered 1 and 2 are treated as a continuous year's course in European History (exclusive of English) from the Teutonic Migra-

tions to the close of the French Revolution (375-1789). Lectures; recitations on lectures, text-books, and additional reading; map and written work; conferences.

2. *Mediæval and Modern European History (continued).*

Professors FOSTER and FAY.

Second Semester, 3 hrs.

Methods of instruction as in Course 1.

In addition to the two courses given above, one other course in History may be chosen to complete the requirement. This should be selected from the following courses.

3. *History of England to the Sixteenth Century.*

Professor FAY.

First Semester, 3 hrs.

This course will consist primarily of the political history of the English nation, with such reference as is necessary to constitutional, economic, and intellectual development. Lectures, recitations, and reports.

4. *History of England and the British Empire from the Sixteenth Century.*

Professor FAY.

Second Semester, 3 hrs.

This is a continuation of Course 3, and will include, in addition to the history of Great Britain, the development of the British Empire and the history of its colonies and dependencies. Lectures, recitations, and reports.

5. *American Colonial History to 1783.*

Professor FOSTER.

First Semester, 3 hrs.

This course is intended to trace the beginnings of the American Nation rather than the details of the history of the individual colonies. Emphasis is therefore laid on the European inheritance brought to this country by the colonists, their development of American institutions in the new environment, the expansion of population, the struggle between French and English for North America, the underlying causes of the Revolution, the growth of independence and union. Lectures, recitations, and reports.

POLITICAL SCIENCE*2. American Political Institutions.*

Dr. BOWMAN.

Second Semester, 3 hrs.

A concise survey of the origin, development, and practical working of American political institutions. This course will include a historical review of the formation of the Federal Constitution and a study of that Constitution as a body of living principles; the working relations of the Federal and State governments; the nature of the American State and the working of its government, and a brief examination of different forms of local and municipal governments. The general aim will be not only to prepare students by adequate information for the proper discharge of the duties of citizenship, but also to stimulate in them a thoughtful patriotism and quicken their sense of civic responsibility. Recitations and lectures.

SOCIOLOGY*1. Anthropology and Ethnology.*

Professor WELLS.

First Semester, 3 hrs.

This is a study of man as the physical unit of society. It considers man's place in nature and the races and varieties of mankind. The method of treatment is both historical and descriptive. Lectures and recitations.

2. Anthropological Geography.

Professor WELLS.

Second Semester, 3 hrs.

This considers man in relation to his physical environment, as determining his dispersal over the face of the earth, his mode of life, and the density of population. It traces the bearings of the natural surroundings upon man's physical and mental characteristics, and follows this fundamental and necessary adjustment through the history of the family and the State and in the evolution of the forms of economic life.

MODERN LANGUAGE

English. — Two years' work in English is required for entrance. The work of the first year is in English Composition and Rhetoric.

The work of the second year may be pursued in English Composition and Literary Analysis or in Argumentation and Debate at the option of the student. For further information, see undergraduate courses in English.

Foreign Language.— The elementary work in two of the three languages of German, French, and Spanish is required for entrance to the School. This means in a general way two years' work in French and German and one year in Spanish. The work covered is pronunciation, grammar, composition, sight-reading, and translation. For further information, see undergraduate courses in Modern Languages.

COURSES OF INSTRUCTION

FIRST YEAR

FIRST SEMESTER

The courses here presented are arranged to meet the greater present demand of students preparing for some phase of business in its generally understood meaning. Modifications of these requirements will be made to meet special needs. Those preparing for Journalism, for example, will be permitted wider elections in English. Those preparing for manufacturing businesses will be given opportunity to secure the necessary scientific training. Those who are preparing for businesses with international connections are expected to take more language than the minimum requirement.

The total amount of work carried each Semester should be equivalent to about eighteen hours per week of College work. The following courses are required unless special permission is granted to substitute equivalent courses: Industries of the United States, either Money and Banking or Transportation, Commercial Mathematics, and one of the three languages of German, French, and Spanish. The courses in Industries of the United States, Commercial Mathematics, German, and French, are given independently to First Year Men, and are not open to Seniors in Dartmouth College. From the remaining courses here presented, the student must complete his schedule under the direction of the Secretary.

ECONOMICS**5. *History and Theory of Money, Credit, and Banking.***

Mr. VAN DEUSEN.

First Semester, 3 hrs.

An opening sketch of the primitive conditions of exchange, followed by a study of the nature and functions of money, relation of a standard of value to prices, evolution of metallic currency, characteristics of good currency, principles of circulation; introduction, nature and forms of government paper money.

The origin and development of national, state, private, and savings banks will then be considered; credit, its place in modern finance; the nature, forms, operation, and regulation of bank currency; banking features of modern trust companies. A comparison will be made with the banking systems of other leading countries. A review of the American monetary legislation.

Lectures, collateral reading, discussions. (Scott's *Money and Banking*.)

7. *Transportation.*

Professor DIXON.

First Semester, 3 hrs.

This course sketches briefly the development of railroads in the United States and considers their social and economic significance; studies the railroad problem of the United States, including theories of rates, combination and pooling, consolidation, community of ownership, and government ownership or control, involving a careful consideration of the work of the Interstate Commerce Commission and of State Commissions; and makes a comparative study of the railroad systems of other countries, especially England, Germany, France, Canada, and the Australian Commonwealth. Water Transportation with special reference to the United States will also be treated.

9. *Industries of the United States: Extractive.*

Dr. PERSON.

First Semester, 3 hrs.

A detailed investigation of the industrial life of the United States. In this course the extractive as distinguished from the manufacturing industries are studied. The purpose being to bring out facts that will be of value to the practical business man the technical aspect of these industries is emphasized. First, a preliminary study is made of the most fundamental facts in the industrial life of the

United States,— facts of geography, topography, geology, climate, race disposition, and the extent and distribution of resources. Then in turn the extractive industries are taken up, the history of each being traced for the purpose of showing how its present condition has been determined by the development of resources, technique, and markets. Finally an estimate is made of the possible future development of these industries.

11. Labor.

Professor WICKER.

First Semester, 3 hrs.

A preliminary review of the economic theory of labor and wages, followed by a concrete, practical study of the present status of labor in the chief industrial nations. Among the more important topics to be treated are forms of remuneration, labor unions, strikes and boycotts, arbitration and conciliation, labor law in the United States and England. Lectures and recitations.

13. The Development of Economic Thought.

Professor WICKER.

First Semester, 3 hrs.

A survey of the history of economic theory as related to the history of economic development. It is the aim of the course to enforce and amplify the student's grasp of economic principles by a study of the development of thought in the economic field. Lectures, recitations, and reports.

ACCOUNTING AND MATHEMATICS

A. Commercial Mathematics.

First Semester, 2 hrs.

The aim in this course is to collect and correlate those principles in the various mathematical subjects which may be needed by the administrator or the financier, and to give the student proficiency in their use. The subjects treated are as follows: Metric System, reduction from the common system to the metric system and the reverse; Money, conversion of United States money into foreign money and vice versa; Percentage, determination of either base, rate per cent or percentage when the other two are known; application made in problems relative to Profit and Loss, Trade Discounts, and Brokerage, Interest (simple and compound) and Commercial Paper; Fire, Life, and Accident Insurance tables and computations of rates; method of computing Foreign Exchange and Stock and Bond values; Taxes and Duties; solution of problems in Partnership

and Averaging of Accounts; estimation of Surfaces and Volumes; methods of quick computation; the use of Calculating Machines; determination of the Strength of Beams and Flow of Water; general principles of Least Squares.

MODERN HISTORY

1. *The Political History of Europe from the French Revolution to the Treaty of Berlin (1789-1878).*

Professor J. H. SMITH.

First Semester, 3 hrs.

The course opens with lectures on the characteristics of the chief European peoples, on the state of things in the principal countries just before the outbreak of the French Revolution, and on the beginnings of that movement. From this point the core of the work is the mastery of a brief text-book, regarded as a full syllabus, and supplemented with formal lectures, comments, required and recommended readings, essays, discussions, and conferences. Due attention is given to physical and political geography. While no attempt is made to teach a philosophy of history, the connection between effects and causes is dwelt upon. The chief stress is laid upon the broad movements of the period, and the vital process by which the Europe of a century and a quarter ago has become the Europe of recent times.

POLITICAL SCIENCE

3. *American Constitutional Law.*

Professor COLBY.

First Semester, 2 hrs.

This course is designed to give students a knowledge of the general principles of the Constitutional Law of the United States, both federal and statal. Particular attention is given to the origin and development of the written constitution in America, to the formation of the early State constitutions, and the various sources of the Federal Constitution and to its text. Recitations and lectures. (Cooley's *Principles of Constitutional Law.*) Four hours a week for the first nine weeks.

SOCIOLOGY

3. *Social Statistics.*

Professor WELLS.

First Semester, 3 hrs.

This course begins with a study of Demography or the social groups given by Statistics. It considers the classification of the

population in modern society due to physical or social causes. It then inquires into the results of Vital Statistics, such as the mortality from different diseases, birth and marriage rates under varying climatic and social conditions. Finally, the above data are brought into connection with Crime, Pauperism, and Social Reform. It is a study of the biological side of social life.

MODERN LANGUAGE

Each student is required to elect work in two of the three languages of German, French, and Spanish. Students who choose Spanish will be assigned to classes in the College, entering upon the grade of work which their previous preparation permits. It is intended that this work shall be in advanced composition and conversation.

The work in German and French is in the hands of a special Tuck School instructor, who gives courses in composition and conversation, keeping in mind the special needs of business men. It is expected that this method of instruction will be extended in the near future to all the language work of the School. Those whose equipment in one or more of these languages is considered adequate, will be permitted to substitute electives therefor.

FRENCH

A. Composition and Conversation.

Mr. MURRAY.

First Semester, 2 hrs.

Practice in speaking and writing French, with the aim of familiarizing the student with spoken French and training him in the use of the common idioms. This course will be conducted as an introduction to the more practical work of the second Semester.

GERMAN

A. Composition.

Mr. MURRAY.

First Semester, 2 hrs.

This course is intended to widen the students' commercial vocabulary by the reading of selections dealing with German business customs and institutions. Exercises in composition will be given to familiarize the student with German grammar and idioms.

FIRST YEAR

SECOND SEMESTER

The total amount of work carried should be equivalent to about eighteen hours of College work. The following courses are required unless special permission is granted to substitute equivalent courses: Industries of the United States, Statistics, either Transportation or Public Finance, Accounting, one of the three languages of German, French, and Spanish. The courses in Industries of the United States, Accounting, German, and French, are given independently to First Year Men and are not open to Seniors in Dartmouth College. From the remaining courses the student must complete his schedule under the direction of the Secretary.

ECONOMICS*6. Public Finance.*

Mr. VAN DEUSEN.

Second Semester, 3 hrs.

A course devoted to a general study of the history, principles, and practice of public finance, and arranged substantially as follows:

(a) Public Revenues, their classification, and the nature and characteristics of the different kinds. The subject of Taxation will receive special attention, both in a consideration of its nature, principles, sources, limits, incidence, and influence; and in the study of its particular forms, such as the general property tax, income, inheritance, and business taxes.

(b) Public Expenditures, their nature, classification, and relation to public welfare.

(c) The Budget, its preparation, form, and composition; the collection of revenues; custody of funds and organization of the Treasury Department; administration of expenditure.

(d) Public Credit, (1) when employed; (2) how employed; contraction of public debts, their classification, flotation, conversion, funding, and redemption.

The work will be conducted much after the seminar plan, with frequent reports on the financial history, legislation, and practices of leading states, with especial reference to the conditions peculiar to the United States. (Daniels' Public Finance as a text; liberal reference to Adams, Seligman, and others.)

8. *Corporations.*

Professor DIXON.

Second Semester, 3 hrs.

The history of corporate business with special reference to the development of the modern "trust"; elements of corporation law; corporation finance with special reference to capitalization; corporation and the state.

10. *Industries of the United States: Manufacturing.*

Dr. PERSON.

Second Semester, 3 hrs.

This is a continuation of course 9, attention being turned to the most important manufacturing industries. It considers the technical and other conditions that have determined the development of the industries studied; it studies the costs and processes in the stages of manufacture from the raw material to the complete product, and investigates the times, places, and opportunities for the sale of the manufactured product.

Courses 9 and 10 will include a study of actual products in the Commercial Museum.

12. *Studies in Statistics.*

Professor WICKER.

Second Semester, 2 hrs.

Statistical methods and results will be studied through the investigation of various phases of economic development. Industrial statistics will receive special attention. Some attention will be given to the sources and reliability of statistical data and to the methods of distinguishing true and false inferences.

14. *Present Day Economic Theory.*

Professor WICKER.

Second Semester, 3 hrs.

An advanced course in Economics, in which mooted points of theory will be critically studied in the works of such economists as

Marshall, Böhm-Bawerk, John B. Clark, Patten, and others. This course is designed as a natural completion to the historical study in the first Semester, as outlined in course 13. Reports and group Conferences.

ACCOUNTING AND MATHEMATICS

B. Theory and Practice of Accounts.

Second Semester, 2 hrs.

(a) General Books, viz.: Cash Book, Journals, Ledgers, and subsidiary books and forms.

(b) Practice in Accounting. The accounts of a manufacturing business are conducted in simple form and brought to the point where individual ownership of the business gives way to the corporate form.

MODERN HISTORY

2. Political History of the United States (1783-1877).

Professor J. H. SMITH.

Second Semester, 3 hrs.

The Political History of the United States from the close of the Revolutionary War to the close of the Reconstruction period (1783 to 1877). This course is conducted in the same general manner as the first Semester course, except that still more attention is paid to collateral reading and original sources. A special attempt is made to introduce students to the leading men of our political history.

4. The Far East.

Dr. ASAKAWA.

Second Semester, 3 hrs.

This course consists of the study of the diplomatic, commercial, and moral relations between the Far Eastern nations and the European and American peoples, and includes a somewhat careful survey of existing conditions in East Asia, including the question of Chinese emigration and of Formosan colonization.

POLITICAL SCIENCE

8. International Law.

Professor COLBY.

Second Semester, 2 hrs.

This course is historical and explanatory of present international relations. It treats of the origin and development of the rules that generally govern the intercourse of modern civilized states, and their

recent modifications by treaty. Recitations and lectures. (Lawrence's *International Law*.) Four hours a week for the last nine weeks.

10. *Comparative Politics.*

Second Semester, 2 hrs.

A study of The State, its nature and origin, form, functions, and ends, with a critical comparison of the present constitutions and the actual working of the governments of England, France, Germany, and the United States. (Wilson's *The State*; Lowell's *Governments and Political Parties of Continental Europe*.)

SOCIOLOGY

4. *Constructive Sociology.*

Professor WELLS.

Second Semester, 3 hrs.

This is an attempt to formulate the Laws of social evolution and social organization. It is an analysis of phenomena that are regarded as at once physical and mental, but whose ultimate explanation must be in terms of Social Psychology. The end constantly in view is a true interpretation of social facts in the concrete terms of science.

MODERN LANGUAGE

Foreign Languages. The work is a continuation of that of the first Semester, one of the three languages of German, French, and Spanish being required. Following are the courses in French and German presented as in the first Semester by a special Tuck School instructor, who shapes them to the needs of the students.

French.

B. Composition and Conversation (*continued*).

Mr. MURRAY.

Second Semester, 2 hrs.-

The methods of the first Semester will be continued, and in addition special attention will be given to numerals, dates, French money, and weights and measures. Letter-writing in its simpler forms as an introduction to the work of the second year will be studied. This will give attention to the most approved style of address, and signature, and to concise and accurate form, and will treat principally of business letters, such as orders, receipts, and the like.

*German.***B. Composition (*continued*).**

Mr. MURRAY.

Second Semester, 2 hrs.

This is a continuation of Course A, and will be devoted entirely to composition work. It will include the simpler forms of business correspondence; letters, receipts, applications for positions, etc.

SECOND YEAR

The courses of the second year given below are not arranged upon an arbitrary Semester basis. The length of each course is determined by the character of the subject. Students must hold themselves in readiness to crowd the work of any course into as short a space of time as the convenience of the individual instructor requires. Election of work for this year must be made under the direction of the Secretary.

ACCOUNTING AND AUDITING*C. Theory and Practice of Accounts and Audit.*

(a) Principles of Accounting. Single and double entry. The different books of account, including Cash Books, Journals, Ledgers, and subsidiary books and forms.

(b) Practice in Accounting. Accounts of Manufacturing Corporations and Investment Bankers, opened, conducted, and closed. These two forms of accounts are taken as types, and from them are illustrated the general principles of accounting as applied to Individuals, Partnerships, Trustees, Corporations, Municipalities, etc.

(c) Trial balance, Cost, Depreciation, Profit and Loss, Good-will, Balance sheet.

(d) Methods of procedure in the examination of accounts for various purposes: (1) extending credit, (2) ascertaining causes of insolvency, (3) ascertaining earnings, (4) special purposes.

(e) Various systems of accounting compared and analyzed.

(f) Auditing and arrangement of accounts with a view of facilitating an audit.

D. Cost Systems.

A careful study of systems of cost determination as introduced into various industries.

This entire course, C and D, is a practical study as distinct from a lecture course.

MR. COMINS.

An elementary course in Accounting having been introduced into the First Year, to be offered for the first time in 1903-4, the Second Year course will, in its introductory portion, be a duplication of that of the First Year.

The Second Year course will be made more advanced. Beginning with 1904-5, Section (a) will read as below, the other sections remaining the same.

(a) Practice in Accounting. Closing the accounts of the individual business man as conducted in the First Year course, and opening the accounts of the corporation. The corporation accounts will be conducted according to the most modern business methods, with a view to furnishing accurate detailed information as to cost of product and as to the condition of the business from day to day.

PRIVATE FINANCE

A. *Banking Practice.* A practical study of the methods and problems of the modern banker, with especial reference to the following topics:—bank organization; note issue; the question of interest on deposits; profitable or unprofitable accounts; loans and discounts; bank rates; commercial credit and ratings; protests; checks and indorsements; the collection of country checks; foreign time-collections; reserves; emergency banking; clearing houses; bank money-orders; general administration of the various departments; changes in banking conditions; clerical methods; examinations and reports; the work of savings-banks and trust companies; national and state banking law, and legal decisions affecting banks.

Special attention will also be given to a study of the money markets and influences affecting the same, and to foreign exchange.

MR. VAN DEUSEN.

B. *Corporation Finance and Management.* Devoted to a study of the rise and growth of corporations, and their position in the modern industrial system; their promotion and flotation; directors; capitalization, stocks, bonds, etc.; stock-watering; dividends; profit-sharing; failures and receiverships; reorganizations; competition; combinations.

The subject of Speculation will be treated in this connection, noting the economic bearings of speculation; its relation to corporation finance; the technical methods of speculation on American exchanges, and their comparison with the exchange methods of England, France, and Germany.

MR. VAN DEUSEN.

C. *Investments.* A course in private finance dealing with the following topics: investments, their nature and character; sources of

investment funds; general principles of investment; classes of investments; convertible and inconvertible securities; diminishing returns from investments; investments of leading financial corporations; influence of the large corporation on investments of small capital; stock exchange and speculative investment; western investment companies; building and loan associations; legal aspects, including the liability of promoters and officers for representations concerning their enterprises; taxation of securities; an examination of various reports, etc., concerning new openings for capital.

MR. VAN DEUSEN.

D. *Practical Study of the Market.* This subject is considered from the banker's standpoint.

(a) The Money Market, including interest rates, exchange, modern banking methods and practice, crises and panics.

(b) The Stock Market, including investment, speculation, the floating and promoting of new securities and their influence upon the market.

MR. RIPLEY.

BUSINESS PROCEDURE

A. *Mechanism of Trade.* In this course a special study is made of those institutions having for their function the regulation of the production and distribution of the products of the industries with which they are associated. It comprises a study of the part played by boards of trade, exchanges, markets, wholesale and retail associations, trade publications, transportation agencies, labor organizations, and so on, in regulating production and distribution in the most important industries.

DR. PERSON.

B. *The Textile Industries.* A course of lectures from the standpoint of the manufacturer. They will treat of: (a) The raw materials of the textile industries; their uses, services, consumption, and characteristics, with special reference to cotton, flax, silk, and wool. (b) The mechanical development of the textile manufacture, with a discussion of modern processes. (c) Commercial and economic aspects of the textile industries, with a consideration of the position of the United States in the world's markets and the opportunities for advance.

MR. NORTH.

C. *Business Problems of the Future.* A course of lectures which will discuss the changing conditions of modern business, the factors in future business success, and the new problems with the ways of meet-

ing them. Some of the subjects discussed will be Competition, Business Correspondence, and Cost-Keeping.

MR. LOGAN.

D. *Relation of Science to Business.* A series of lectures intended to show the student the points of contact between business and Science.

(a) Chemistry. The place of the chemist in the world's work. The utilization of by-products, the economic value of exact knowledge.

PROFESSOR BARTLETT.

(b) Biology. The growing commercial importance of the science.

PROFESSOR PATTEN.

(c) Physics. Relation of the Bureau of Standards to Commerce, the standardizing of measures of length and mass, of electrical quantities and candle powers. Application of electricity to industries; electric power transmission, electric traction, efficiency factors.

PROFESSOR HULL.

E. *Relation of the Employer to Labor.* This course deals with the present relations of Capital and Labor in the United States. It investigates the statistics, organization and methods of Trade Unions, their temper and tendencies, together with strikes and lockouts. It considers the social conditions which are fundamental to the economic relations of employers and wage receivers. This course is based on the belief that an understanding of the workingman's point of view is essential to the successful conduct of business.

PROFESSOR WELLS.

COMMERCE AND INDUSTRY

A. *Foreign Commerce of the United States.*

(a) Detailed study of the methods and forms employed by American merchants in their dealings abroad, including cable codes, orders, invoices, bills of lading, customs formalities, marine insurance, and ship's papers.

(b) The customs tariffs of the more important commercial nations, including commercial and reciprocity treaties, bounties, tonnage duties, port regulations, laws governing coastwise traffic.

(c) Detailed study of American Commerce with the aid of trade papers, consular reports, and the government publications of various kinds, with a view especially to the acquirement of new markets by

adaptation of products to their needs and to the retention and extension of markets already open.

PROFESSOR DIXON.

B. *Commercial Geography of Undeveloped Countries.* An exhaustive study of the physical and social conditions of industry in regions like the Colonies of the United States, Cuba, Central America, South America, South Africa, Australia, and China. This course aims to cover the field from two points of view, studying the existing and prospective conditions of these regions, first, as to markets for the productions of the United States, and second, as to investments and the establishment of industrial enterprises in these regions.

DR. PERSON.

C. *South American Trade.* The commercial relation of the United States to the South American countries. Consideration will be given to the actual way in which business is done,—from the production of the merchandise to its delivery to the consumer in the foreign country; and from the production of the raw material in the foreign country to its delivery to the American manufacturer and its re-shipment abroad as manufactured merchandise.

MR. EDDY.

TRANSPORTATION

A. *Railroad Service.*

(a) Organization. The organization of a railroad, including its charter rights, powers and duties of stockholders; internal organization for business purposes with the various plans on different systems; officers and employees and their duties; relations of employees to their employment, including examinations for employment, rules of discipline, relief departments and pensions.

(b) Operation. Movement of trains, cars and power, problems of loading, car accounting and interchange, including the discussion of mileage vs. *per diem* payment, duties of employees engaged in operation.

(c) Traffic. Rules and regulations governing freight traffic, discussion of passenger, mail and express service, methods of traffic development; methods of rate making and various kinds of rates; bills of lading and other forms used in traffic handling; fast freight lines, traffic associations, pools and other forms of railroad coöperation.

(d) Mechanics. Study of the elements of railroad construction and maintenance and their costs. Details of locomotives and cars, their use, construction, and repair. Modern mechanical and safety devices, including brakes, couplers, signalling systems, and the

like. Purchasing Department, with consideration of properties of materials and railroad supplies. This section of the work will be conducted in part under Course G (2d part) in the Thayer School of Civil Engineering under the title "Economics of Location, Construction, and Maintenance of Railways."

(e) Finance and Statistics. (1) *Accounting and Auditing*. Organization of this department with a study of its duties and the methods employed. (2) *Statistics*. Careful study of the statistical results of railroad operation and management including the significance of the various statistical units and averages used. Reports made by railroads to the Interstate and State Commissions. (3) *Finance*. Interpretation of railroad reports, including income accounts and balance sheets and determination of the different policies pursued as to maintenance and betterments. The more general discussion of capitalization, reorganization, and the like will be found under Private Finance B.

(f) Legal. The rights of railroads under common and statute law, their obligations to employees and shippers, taxation, relation to Interstate and State Commissions. PROFESSOR DIXON.

B. *Railroad Operation and Administration. — From the accountant's standpoint.*

(a) Transportation on a Railroad. The moving of trains, single track, double track. How they are made up and broken. The hostling and care of engines at terminals. The yard work, various plans of switching. The stations and warehouses. How freight is handled, negotiation of its receipt and delivery.

(b) Maintenance. The forecast and recast of the work. The annual and monthly budget. How maintenance differs from transportation. Description and classification of maintenance. How the work of maintaining track and structures is carried on. How the cars and locomotives are kept up to standard. The various reports and analyses that keep the supervising officer in touch with the situation.

(c) Revenue. How assessed and collected. The safeguards thrown around its collection and remittance. The Travelling Auditor, his duties and his methods. The work of the freight and ticket accountants. The different systems of freight accounting. The clearing house, its advantages and limitations.

(d) Disbursements. What they are for. How they are made. The authorization of disbursements and the accounting and audit-

ing. The classification of disbursements. The principles of disbursement statistics.

(e) Cars and Power. The methods of car distribution and balancing power. How daily disposition of car supply and power is watched. The interchange and accounting for cars. Mileage *vs. per diem*. Stores, how bought and disbursed on a railroad, how watched and accounted for.

(f) Organization of a small railroad — of a large railroad. The divisional *vs.* the departmental plan. The significance of subordination. The dual capacity and how harmonized with the general plan.

MR. EATON.

INSURANCE

A. *Economics of Insurance.* An introductory study of the economic theory of risk, followed by an examination of the nature and theory of insurance, a review of the rise and development of its different forms and systems, with a consideration of such included topics as insurable interests, premiums, policies, losses, averages, subrogation, etc.; also, the economic effects of insurance, public supervision of companies, and insurance law.

MR. VAN DEUSEN.

B. *Mathematics of Insurance.* This course will enter in some detail into the mathematical side of insurance, including such topics as mortality tables, annuities, endowments, reserve, surplus, premiums, dividends, and the like.

C. A series of lectures designed to illustrate the practical workings of insurance as conducted to-day in all its important forms, with special reference to the United States. After a brief discussion of the economic conception of insurance, its history, development, problems, and social service, attention will be given to fire and casualty insurance, to employer's liability and corporate suretyship, but special study will be devoted to its most highly developed form in life insurance. This will involve consideration of fundamental assumptions, rate-making, policy construction, varied benefits, field management, advertisements, compensation, solicitation, medical selection, practical accounting, investments, office-work, corporate management, state supervision, insurance law, insurance by the state. A critical estimate will be presented of the leading theories and different practices related to these questions, the object being to give a just estimate of the business, and a comprehensive knowledge of its present day workings.

MR. DEBOER.

ADMINISTRATION

A. *Corporations and Corporate Administration.* Origin, history, creation and dissolution of corporations. What is meant by franchise. Municipal and quasi-public corporations. Stock and Bonds. Corporations and partnerships distinguished; relation of stockholders to the corporation; power of majority; rights and remedies of minority stockholders. Officers and directors, their powers and duties; constitution and by-laws. Powers of corporations and their limits. Trusts. Methods of formation. State and Federal control. Practical administration of corporate business. MR. STREETER.

B. *Railroad and Bank Administration.* See under Transportation B and Private Finance A.

LAW

A. *Commercial Law.* An outline of the law of real property, including deeds, mortgages, and wills; of the law of contracts; of negotiable instruments; of personal property, including sales and bailments; of agency, carriers, insurance, and trustees.

POLITICS AND DIPLOMACY

A. *Politics and Administration.* A study of American political parties since 1873; their organization and increasingly centralized control; their policies, and methods chosen for executing them; existing electoral machinery, its practical working and defects; some proposed remedies. PROFESSOR COLBY.

B. *Diplomacy.* The subject of this course will be the business of international negotiation, and while necessarily parallel to international law, it will deal with that subject only as it must, and in an incidental way. Lectures will be given on the origin and evolution of modern diplomacy; the qualifications and methods of typical modern diplomats; the course of certain specially noteworthy negotiations from the Congress of Vienna to the Venezuela Case, including the evolution and history of the Monroe Doctrine; the organization of American and foreign diplomatic and consular services; principles of diplomatic procedure; and the duties laid down by the United States Government for its agents in foreign countries. This course is intended to be practical rather than merely theoretical, and many workable ideas bearing not only on diplomatic but on business negotiation will be discovered. PROFESSOR SMITH.

HISTORY

A. Modern History. This course will consist of lectures on Canada, Mexico, Australia, and the principal countries of South America, Asia, and Africa. The main object will be to convey a knowledge of the history, character, and present circumstances of the people of these countries, and prepare students to deal intelligently with them. Under the direction of the instructor the students will do constructive work in the political history of Europe since 1878, each student covering a given period and profiting from the work of other students.

PROFESSOR SMITH.

MODERN LANGUAGE

Foreign Language. Students are required to pursue throughout the year one foreign language. As in the first year, students who pursue Spanish will be assigned to classes in the College and work will be continued in advanced composition and conversation. The work in French and German will be in the hands of a special Tuck School instructor, who will arrange the courses to meet the specific needs. Those whose equipment in the language is considered adequate will be permitted to substitute an elective therefor.

The courses in French and German are as follows:

French C and D. Composition and Conversation, advanced. A continuation of the work of the first year in more advanced form. Special attention will be given to all forms of business correspondence in French, and discussions in French will be held upon the current details of French commercial and industrial affairs. MR. MURRAY.

German C. Advanced Composition. A continuation of the work of the first year including more advanced forms of business correspondence, bills of lading, bills of exchange, checks, promissory notes, etc.

MR. MURRAY.

German D. Advanced Composition and Conversation. Trade reports and newspaper articles will be discussed. Matters of general commercial interest will be used to provide material for composition and conversation.

MR. MURRAY.

THESIS CONFERENCE

An important part of the work of the year is the preparation of a Thesis upon a subject along the line of the student's special work. A conference of students and instructors will be held each week during the year for discussion and suggestion.

CALENDAR

The calendar of the first year is the same as that of Dartmouth College. The year is divided into Semesters, with the usual Thanksgiving, Christmas, and Easter recesses, and closes the third week in June.

The second year is entirely independent of the College. One day of vacation is granted at Thanksgiving, and two weeks at Christmas. The Easter recess is omitted, and the year closes the last week in April. This plan has been adopted in order that the work of the concluding year may be concentrated, and that the student may take advantage of the opportunities of the early spring for entering business.

EXAMINATIONS

Examinations for first year students are held at the close of each College Semester, the examination periods being the same as those of the College. The examinations for Second Year students are held at the conclusion of each course, and additional examinations are given from time to time at the pleasure of the departments concerned.

DEGREE

The degree of Master of Commercial Science will be conferred upon those who have completed and passed examinations upon the course of study of the School with credit and have presented and defended a satisfactory thesis.

THESIS

The subject of the thesis must be announced to the Secretary as early as the 15th of November of the year in which the student expects to take the degree.

The thesis must be completed and put in the hands of the Secretary as early as the 1st of April of that year.

Every candidate for the degree shall deposit a copy of his thesis, typewritten, in the Library of the School before the close of the year.

The thesis after acceptance by the instructor concerned must be read and defended before a committee of the Faculty.

FINAL EXAMINATIONS

The examinations are both oral and written, and cover the work of the final year. The oral examinations are conducted in the presence of a committee of the Faculty by the instructor in whose department the principal part of the work of the student falls.

FEE

A fee of ten dollars is charged for the degree. This must in all cases be paid into the College Treasury ten days before the close of the year.

FACILITIES

The headquarters of the School is the Hubbard House, which contains reading-rooms provided with all periodical literature pertinent to the work, and seminary rooms possessing the necessary books, documents, and reports for the furtherance of investigation. The general library in Wilson Hall is available, and its equipment along the lines of work in the School will be made more complete and exhaustive as the demand for these facilities increases.

The recent additional gift by Mr. Edward Tuck of \$100,000 for a Tuck School building makes possible the provision in the near future of an equipment perfectly adapted to the demands of the work. Work has been begun on the new building, and the contract calls for its completion March 1, 1904.

The third floor of the building is to be devoted to the uses of a Museum, which is to contain samples of the raw materials, the partly finished and finished products and the by-products of the important

industries of the United States, photographs, lantern slides, maps, charts, and other illustrative matter. A very successful beginning has been made and the material collected has been arranged and made available for class use.

EXPENSES

The tuition is the same as in the College, one hundred dollars, payable one half at the beginning of the year, the other half on January 10 succeeding. A further charge of twenty-five dollars is made for certain privileges including the use of Library, membership in College Hall, and the various advantages growing out of the increase of the College plant. The scholarships provided for undergraduates are not available for students of the Tuck School except in so far as such students may be pursuing the work of the first year of the School as Seniors in Dartmouth College.

The expenses of a student will vary from \$275 to \$550 per year, the most important variable elements being room-rent and board. The College dormitories are open to students of the School.

**THAYER SCHOOL OF CIVIL
ENGINEERING**

CALENDAR

1903

- July 15 . . . Year of forty-one weeks for Junior class began.
September 15 . Year of thirty-two weeks for Senior class began.
December 22 . Recess of ten days begins.

1904

- April 26 . . . Year for the Class of 1904 ends. Degree of Civil Engineer conferred.
Summer work period for second class begins; continues about twenty weeks.

OFFICE HOURS

DIRECTOR — Robert Fletcher — Thayer Building, 9 to 10 A. M., each week day.

THAYER SCHOOL OF CIVIL ENGINEERING

OVERSEERS

THE PRESIDENT OF DARTMOUTH COLLEGE.

GEN. JOHN CARVER PALFREY *Boston, Mass.*

GEN. HENRY LARCOM ABBOT, LL.D. *Cambridge, Mass.*

JONATHAN PARKER SNOW, C.E. *Boston, Mass.*

PROF. GUSTAV JOSEPH FIEBEGGER . . *West Point, N. Y.*

FACULTY

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

ROBERT FLETCHER, PH.D., DIRECTOR *and Professor of Civil Engineering.* 42 College St.

JOHN VOSE HAZEN, C.E., *Associate Professor of Civil Engineering.* 33 N. Main St.

JOHN LAROEY MANN, C.E., *Associate Professor of Civil Engineering and Surveying.* 4 W. Wheelock St.

CHARLES ARTHUR HOLDEN, C.E., *Instructor in Surveying.* 30 N. Main St.

CHARLES HENRY RICHARDSON, PH.D., *Instructor in Economic Mineralogy and Lithology.* 4 College St.

FRANK EUGENE AUSTIN, B.S., *Instructor in Electrical Engineering.* 9 S. Park St.

STUDENTS

SECOND YEAR

Name	Residence	Room
Comstock, Harold Dearborn, B. S.	<i>Chelsea, Vt.</i>	Thayer Building
Morse, Harold Marston, B. S.	<i>Hanover, N. H.</i>	1 S. Park St.
Osgood, Fred Wheeler, B. S.	<i>Fitchburg, Mass.</i>	6 W. South St.
Paul, Carroll, B. S.	<i>Washington, D. C.</i>	♠ Δ Θ House
Perham, Frank Stuart, B. S.	<i>Hanover, N. H.</i>	6 W. South St.
Reed, George Albert, B. S.	<i>Barre, Vt.</i>	5 Miner House
Ropes, Leon Howard, B. S.	<i>Methuen, Mass.</i>	Observatory
Schilling, Albert Henry, B. S.	<i>New Britain, Conn.</i>	6 Dartmouth
Smith, Sherman, B. S.	<i>Omaha, Neb.</i>	6 W. South St.
Soper, Ralph Carroll, A.B.	<i>So. Royalton, Vt.</i>	25 Sanborn
Worthen, Carl Burpee, B. S.	<i>Melrose, Mass.</i>	Thayer Building

INTERMEDIATE YEAR

(Students on leave of absence for field and office practice.)

Hess, Harold Miner, B. S.	<i>Evanston, Ill.</i>
Assistant Actuary, Chicago, Ill.	
McClary, Nelson Ford, B. S.	<i>Malone, N. Y.</i>
Rodman, N. Y. C. & H. R. R. Co., Watertown, N. Y.	
Matteson, Byron Winfield, B. S.	<i>New York, N. Y.</i>
Assistant, Hastings Pavement Co., New York, N. Y.	
Mechlin, Oscar Alexander	<i>Washington, D. C.</i>

FIRST YEAR

Name	Residence	Room
Burdett, Owen Long	<i>Wakefield, Mass.</i>	B Θ Π House
Doonan, John Francis	<i>Greenville, N. H.</i>	8 College
Fellows, John Hibbard	<i>Tilton, N. H.</i>	13 Reed
Lewis, George Alexander	<i>Hingham, Mass.</i>	2 Dartmouth
Mair, John William	<i>Detroit, Mich.</i>	The Hanover Inn
Muchemore, Harrie Langdon	<i>Portsmouth, N. H.</i>	17 Thornton
Perkins, Wayne Arthur	<i>Newmarket, N. H.</i>	K K K House
Roby, George Harrison	<i>Whitewater, Wis.</i>	15 N. Park St.
Shaw, William Thomas	<i>Middleboro, Mass.</i>	♠ Δ Θ House
Stowell, Henry Franklin	<i>Worcester, Mass.</i>	15 N. Park St.
Tappan, Crosby	<i>Sharon, Mass.</i>	1 S. Park St.
Witham, Myron Ellis	<i>Pigeon Cove, Mass.</i>	C. and G. House
Withey, Morton Owen	<i>Meriden, Conn.</i>	44 College St.
Woodward, Guy Eric	<i>Randolph, Vt.</i>	29 Sanborn

HISTORICAL SKETCH

The THAYER SCHOOL OF CIVIL ENGINEERING was established more than a quarter of a century ago, to provide a *distinctively post-graduate* or professional course of study in Civil Engineering. In pursuance of this aim the founder, the late GENERAL SYLVANUS THAYER, Corps of Engineers, U. S. Army, a graduate of Dartmouth College in 1807, and distinguished as the organizer and "father" of the U. S. Military Academy, caused to be prepared a detailed "Programme" of the requisites for admission, covering the entire range of mathematics, chemistry, physics, and other studies, which were regarded as *preparatory*. No specific requirements in language, literature, history, and other subjects which give a broader mental training, were made, because at that time few could get the preparation demanded without attending College at least three years, or during the usual four years' period. Hence, during the first twenty years of the Thayer School, 72 per cent of all who were admitted had already received the degree of B.S. or A.B., and of the remainder, 7 per cent had attended College three years, either as "classical" or "scientific" students.

It has been the consistent policy of the administration from the first to offer a general course of study in civil engineering, so developed as to include the essential principles and operations of all the important branches or divisions. There are no laboratories or special machinery for instruction in "mechanical engineering;" but the instruction in applied mathematics, mechanics and physics covers all of the fundamental theory of mechanical engineering, including the principal applications of electricity. The high standard has restricted the number of students, but the aim is to secure the selected material of a larger mental training, from which may be developed broader men, fitted to assume in due time wider responsibilities.

REQUIREMENTS FOR ADMISSION

1. English Grammar; 2. Geography; 3. History of the United States; 4. Arithmetic; 5. Book-keeping: only the simpler principles and methods of single and double entry; 6. Algebra, *Taylor* or *Bourdon*; 7. Geometry, *Legendre*; 8. Trigonometry and Mensuration; 9. Compass Surveying, *Murray*; 10. Descriptive Geometry, including Shades, Shadows, Perspective, *Church*; and Isometrical Drawing, *Warren*; 11. Analytic Geometry, *Bowser* or *Hardy*; 12. Calculus, *Hardy*; 13. Analytic Mechanics, *Wood's* Elementary; 14. Chemistry: as nearly as possible a course equivalent to Chemistry 2, 3, and 4 of Dartmouth College courses; 15. Physics: as nearly as possible the equivalent of Physics 1, 2, 3, and 4, of the College courses (5 is desirable but not insisted upon); 16. Astronomy, *Young's* Elements; 17. Physical Geography and Meteorology.

The text-books indicated above are recommended, but others fully equivalent may be used.

Candidates for admission should be present for examination two days, at least, before July 15, or, by appointment, in May or June. Notice of intention to apply should be given by April 15, or earlier if possible. None will be received for advanced standing. Certificates from preparatory institutions, as to scholarship and character, will have due weight, but in all cases the candidate is orally examined, more especially with reference to the essential principles of the branches numbered 6, 7, 8, 10, 11, 12, 13, 14, and 15. Prompt and accurate statement of principles and definitions is insisted upon, and a limited amount of blackboard work required. A neat set of mechanical drawings — constructions of important geometrical problems and a few leading problems of Descriptive Geometry — must be presented. Hence a fair degree of skill in mechanical drawing is one of the essential conditions.

Students of approved ability and proficiency in the Chandler Scientific Course of the College may elect the first year courses in the Thayer School for their work of Senior year. At the close of the year, they may formally graduate from the College with the degree of B.S. They may then become eligible for the degree of Civil Engineer, after pursuing the regular engineering courses of the second

year group. For such students, the engineering course is technically "post-graduate" only for the second or last year.

The conditions for such election are: a "standing" of at least 75 per cent, in the aggregate, in the subjects above specified, and not less than 85 per cent in at least three, nor less than 60 per cent in any one (not less than 75 per cent in Algebra, Trigonometry, and Descriptive Geometry); a special examination, as stated above; an intention to pursue, eventually, the entire engineering course, either in the next consecutive year, or as soon thereafter as the circumstances may permit. Only young men of correct habits and high character will be accepted or retained. Indulgence of an appetite for intoxicating drink will be sufficient reason for rejection of any applicant; — and such indulgence by an accepted member of the institution during his course will be sufficient cause for summary dismissal.

Students in Dartmouth College, in course of preparation for the Thayer School, are advised to take the following studies, both to meet the College requirements and to conform to present standards of qualification: —

FRESHMAN YEAR

First Semester

* French 5 or 1
Graphics 1
English 1
Mathematics
German

Second Semester

French 6 or 2
Graphics 2
English 2, 8
Mathematics
German

* In entering College students are advised to present French.

SOPHOMORE YEAR

First Semester

Graphics 3
Mathematics
Physics 1
Physics 3
History 1

Second Semester

Graphics 4
Mathematics
Physics 2
Physics 4
History 2
Chemistry 2 for those not presenting Chemistry on entrance.

JUNIOR YEAR

First Semester

* Mathematics
 Chemistry 3
 Astronomy 1
 English 15
 Economics 1
 Graphics 3a

Second Semester

Political Science 2
 Chemistry 4
 Engineering 2
 Astronomy 2a
 Philosophy 2
 Economics 2
 Geology 2

* Mathematics must include Algebra, Plane and Higher Geometry, Trigonometry, Analytical Geometry and the Calculus. Short courses in Differential Equations and Determinants are strongly urged because of their applications in the theory of electro-technics. In entering College students are advised to present French.

COURSE OF STUDY AND PRACTICE

FIRST YEAR

Thirty-nine weeks, excluding all intermissions, each week comprising eleven half-days, of four and a half hours, devoted to study, field-work, or office-work. In emergencies the half-day is extended to five or five and a half hours.

A — THEORY AND PRACTICE OF SURVEYING. [This is preceded by a preliminary course of 104 hours during Junior year in College.]

1. INSTRUMENTS — Engineer's transit, wye-level, dumpy level, prismatic compass and sextant; theory of and perfecting of all adjustments not required to be made by the maker; determining magnifying power of telescopes, sensitiveness of spirit levels and compass needles, etc.

2. PRELIMINARY PRACTICE, until a required degree of precision is attained, and in which each student shall, by himself, or as one of a party, do a piece of test work of each of the following kinds with satisfactory precision: — differential levelling; angle measurement in

a small scheme of triangulation which is the basis of a systematic plan of survey for the season; a simple land survey involving ordinary measurement of lines and angles; measurement of a baseline 1500 feet or more in length by steel tape and method adequate to secure precision measured by a probable error not greater than 1 in 400,000; solar observations with engineer's transit for azimuth.

3. **GENERAL PRACTICE** — A topographical survey for a small contour map, including part of a village or town; a stadia survey of two to four or more miles making a closed circuit for checks; the routine of an ordinary railroad survey, preliminary and location, with some special practice in locating easement curves; some practice with the aneroid barometer, prismatic compass and hand-level in reconnaissance. The office work includes the most approved methods of computing, use of planimeter and slide-rule, or more precise calculating machine, mapping, and tracing.

4. **SPECIAL METHODS and instruments**: — use of the plane-table, photography in surveying, geodetical surveying, and special practice relating to city and underground surveys, etc., can only be briefly considered in the class-room, for the most part. Practice in these specialties is nearly all beyond the domain of the School; the details are readily mastered in the future emergency by a proficient in what has preceded.

July 15 to Nov., 160 half-days.

B — MECHANICS AND APPLICATIONS. Principles of kinematics, statics, and kinetics; data and laws of friction; elements of mechanism; important applications in the stability of structures, machine design, operation of hoisting machinery, action of the locomotive engine, etc. 70 half-days.

C — MATERIALS OF ENGINEERING. 1. Physical and chemical properties and production of limes, cements, mortars, natural and artificial stone, timber, iron, steel, zinc, copper, aluminum, etc.; durability, preservative materials; a brief course in Mineralogy. 2. Mechanical properties, analytically and experimentally treated. 3. Laboratory tests of cements, iron, steel, wood and other materials. 72 half-days.

A testing machine of sufficient capacity for tension, compression and bending stress, affords sufficient practical illustration of the mechanics of materials in a prescribed series of tests made by each

student. Several series of cement tests are carried out each year by groups of two or three, and written reports of these are made to the Instructor in proper form.

D — ORDINARY AND SPECIAL STRUCTURAL WORK AND OPERATIVE DETAILS. Course begun:—Elementary courses on stone-cutting, masonry and foundations, arches and other masonry structures. 36 half-days.

E — FRAMED STRUCTURES:—TRUSSES FOR ROOFS AND BRIDGES, BUILDING SKELETONS, ETC. Course begun:—Graphical statics and other analysis applied to girders and simple trusses. Ordinary and essential details. One or two simple designs. 44 half-days.

G — ROADS, RAILROADS, AND TRANSPORTATION IN GENERAL. Course begun:—Roads, streets and pavements,—construction and maintenance. 20 half-days.

L — ELECTRO-TECHNICS. Course begun:—27 half-days.

SECOND YEAR

Thirty weeks, of eleven half-days each, from about September 15 to last Tuesday in April (effective time only).

D — (concluded). Framing in wood and metal; advanced reading on masonry and foundations; theory of retaining walls; dams; chimneys; high-framed buildings; fire-proof and slow-burning construction; renewals and enlargements. Engineering contracts and specifications. Auxiliary work and machinery. Inspection. 33 half-days.

E — (concluded). Analysis of stresses in trusses, framed arches, stone arches, and suspension bridges; details and maintenance. Frames of tall buildings. Tours for inspection. One design worked out. 50 half-days.

F — ROCKWORK, TUNNELING, AND MINING. Outlines of geology,—vacation reading. Explosives and blasting; special appliances and methods in subterraneous works. Reading and lectures. 14 half-days.

Copper mines and furnaces in neighboring towns in Vermont, formerly very extensively worked, afford good object lessons in mining and metallurgy.

G — (concluded). Economics of location, construction, and maintenance of railways. A brief study of street railways (electric and cable traction, etc.), mountain railways, telpherage, and marine transportation. 33 half-days.

Tuck School lectures on history and theory of transportation and on railroad operation and administration.

H — HYDRAULIC ENGINEERING. Statics and dynamics of fluids; principles and data of hydraulics; collection, storage, purification, and distribution of water for town supply, power, and irrigation. Hydraulic motors; theory, construction, and operation; development of water-power. Gauging of Connecticut River. Measurements of flow by weirs and nozzles, of efficiency of motors, friction in pipes, etc. 44 half-days.

The Hanover Waterworks, constructed at a cost of \$65,000, affords all needed conditions for hydraulic experiments under a head of 190 feet, in a laboratory equipped for all such operations of recognized importance. It is also an example of successful construction and operation, including a reservoir of 135,000,000 gallons capacity, a dam 700 feet long, gate-house, and main and distribution system of about 8 miles of pipe, all of which is available for inspection and for study of rainfall and its actual collection, water-ram in the pipes, efficiency of fire-streams, etc.

I — HEAT, HEAT ENGINES, AND POWER. Principles of Thermodynamics; fuels, and their combustion; steam. Heat engines: construction and operation of typical forms; application of laws. Development and transmission of power. 33 half-days.

The central steam-heating system of the College, serving 20 buildings, affords opportunity for studying efficiency of boilers and furnaces, at times when regular tests are made. The mills at Wilder, near by on the Connecticut River, give abundant facilities for studying the operation of a large water-power plant.

J — SANITARY ENGINEERING. Drainage and sewerage; systems and appliances; governing principles. Heating and ventilation. Special study of "Separate Systems" and methods of sewage disposal. Sand filtration of water and sewage. 22 half-days.

The village has three separate systems of sewerage, one built by the College and adapted to a suitable disposal plant hereafter. Successful examples of heating and ventilation may be studied in the new

buildings of the College. A set of model sand filters has been in operation for some years at the Thayer School building, and those who take special interest in the problem of the purification of water supply as affected by micro-organisms may arrange for such studies so far as time will permit.

K—CANALS, IMPROVEMENT OF RIVERS AND HARBORS. Principles; surveys and observations; construction in different cases,—means and methods of procedure. (Briefly by reading and lectures.)

L—PRINCIPLES OF APPLIED ELECTRICITY. In this course, the method of instruction aims to impart a concise, practical knowledge of fundamental laws and phenomena, and of the best modern types of electrical apparatus, as to their design, construction, and operation,—all adapted to meet the demands of actual practice.

The recitations deal with the analysis of the magnetic field and lines of force; the magnetic circuit; properties of the electric current; electro-magnets; electro-magnetic induction; electrical units; energy of the electric circuit, and the application of the foregoing to primary and storage cells, motors and dynamos, telephone and telegraph, electric lighting and transformers.

The laboratory exercises are arranged to show the construction and use of the more important measuring instruments, galvanometers, voltmeters, ammeters, wattmeters, and to give practice in testing for resistance and insulation.

Supplementary lectures will deal more specifically with the construction, operation and characteristics of motors, dynamos and transformers; storage batteries; alternating currents; electrical transformation; transmission and distribution of energy. 72 half-days.

It is proposed to begin this course in the first year.

METHODS OF INSTRUCTION. PRACTICE. During the first year, instruction is given chiefly by daily recitations from text-books and ample practice in field and laboratory. During the second year the character and range of subjects call for wider reading of treatises and current technical literature, which is promoted by full programmes of the courses, giving all of the important references to date. This is supplemented by recitations, lectures, and examinations.

The amount of field-work and other practice is made sufficient only to elucidate and emphasize the more important principles. In this

connection carefully planned tours, for the study and inspection of works in progress or completed, are made when advantageous for purposes of instruction.

SUMMER WORK-PERIOD AND INTERMEDIATE YEAR. In recent years opportunities for summer employment have exceeded the supply of available young men. In most cases the students are qualified only for quite subordinate positions as draughtsmen, assistants in city engineers' offices, on railway surveys or maintenance, U. S. Government surveys, etc. The advantages from such practice vary with the opportunity, character, and aptitude, and previous experience of the man. Some find it necessary or desirable to continue in such employment during the entire following year. These are entered in the Annual and College Catalogue as a non-resident division for an Intermediate Year.

BUSINESS RELATIONS OF THE ENGINEER. Arrangement is made for attendance of Thayer School students upon lectures given in the Tuck School of Administration and Finance, upon the law of contracts and upon organization of industrial plants, etc. On the other hand Tuck School students are invited to participate with Thayer School students in such parts of courses G and K as are appropriate to their own courses of study.

GENERAL QUALIFICATIONS OF A GRADUATE. He must have a good understanding of, and be adept in, the routine practice of surveying, so as to hold his place under an exacting chief of party; he must be, at the start, an acceptable junior draughtsman and an accurate computer, able to make a good original, a good tracing, and a blueprint; he must have a sufficient practical knowledge of the ordinary materials of construction, gained by adequate manipulations in the laboratory and by such observation and experience as every available opportunity will bring to him; and he must have developed the habit and instinct of making neat and accurate and sufficiently complete records, in a well-kept note-book, of the results of his observations and of his own work; also the habit and method of keeping himself well informed as to Engineering progress through current technical literature.

TERMS, EXAMINATIONS, AND EXPENSES

The course of study and practice continues through two years, commencing, for the entering class, July 15, and continuing until the last Tuesday in April. This allows twenty weeks of vacation for summer employment, when procurable. There may be a short recess at the Christmas holidays. Examinations are held from time to time, as the work progresses. The annual examination is held before the Board of Overseers, in April.

Tuition is one hundred and twenty-five dollars per annum, one-half to be paid each Semester in advance. There is no provision for pecuniary aid.

The annual expenses of an economical student will vary not far from \$400, including tuition, books, and stationery, board, fuel, light, and drawing instruments.

Only those students who maintain an average of 75 per cent during the first year of the Thayer School work will be allowed to enter upon the courses of the second year, or be entered in the College catalogue as students of an Intermediate year.

After a satisfactory final examination before the Board of Overseers, including an acceptable thesis, the degree of Civil Engineer will be conferred.

THE THAYER SCHOOL ANNUAL, published in September, 1903, contains further information relating to the work of the institution, its graduates, etc. This will be sent, and inquiries answered, on application to the President, the Dean, or

PROFESSOR ROBERT FLETCHER, *Director*.

MEDICAL SCHOOL

CALENDAR

1903

July 14 Third and Fourth Year Courses began.

September 24 First and Second Year Courses began.

Recess from December 23, 10.00 A.M., to January 5, inclusive.

1904

February 20 Third and Fourth Year Courses end.

February 22, 23 . . . Examinations by Delegates.

February 23 Graduating Exercises.

April 1 Second Year Course ends.

June 25 First Year Course ends.

Change after 1903-1904

1904

August 15 Third and Fourth Year Courses begin.

September 22 First and Second Year Courses begin.

1905

April 1 Third and Fourth Year Courses end.

June 24 First and Second Year Courses end.

OFFICE HOURS

DEAN — William Thayer Smith — No. 9 School St., 1.30 to 2.30 P. M., daily.

SECRETARY — Gilman DuBois Frost — No. 13 E. Wheelock St., 8 to 8.30 A. M., 1.30 to 2, 7 to 7.30 P. M., daily.

MEDICAL SCHOOL

FACULTY

WILLIAM JEWETT TUCKER, D.D., LL.D. PRESIDENT.

WILLIAM THAYER SMITH, M.D., LL.D., DEAN *and Professor of Physiology.* Hanover.

GILMAN DuBOIS FROST, A.M., M.D., SECRETARY *and Professor of Anatomy.* Hanover.

HENRY MARTYN FIELD, A.M., M.D., *Professor Emeritus of Therapeutics.* Pasadena, Cal.

PHINEAS SANBORN CONNER, M.D., LL.D., *Professor Emeritus of Surgery.* 215 W. 9th Street, Cincinnati.

CHARLES BEYLARD NANCREDE, M.D., LL.D., *Professor of Surgery.* Ann Arbor, Mich.

EDWIN JULIUS BARTLETT, A.M., M.D., *Professor of Chemistry.* Hanover.

AUGUSTUS PALMER DUDLEY, M.D., *Professor of Gynecology.* 678 Madison Ave., New York City.

TILGHMAN MINNOUR BALLIET, A M., M.D., *Professor of Therapeutics.* 3709 Powelton Ave., Philadelphia.

WILLIAM PATTEN, Ph.D., *Professor of Zoölogy.* Hanover.

JOHN MARTIN GILE, A.M., M.D., *Professor of the Science and Practice of Medicine.* Hanover.

HOWARD NELSON KINGSFORD, M.D., *Professor of Pathology and Bacteriology.* Hanover.

JOHN ORDRONAU, M.D., LL.D., *Professor of Medical Jurisprudence.*
Roslyn, N. Y.

GRANVILLE PRIEST CONN, A.M., M.D., *Professor of Hygiene.*
Concord, N. H.

EDWARD COWLES, M.D., LL.D., *Professor of Mental Diseases.*
Waverley, Mass.

MYLES STANDISH, A.M., M.D., *Professor of Ophthalmology.*
6 St. James Ave., Boston.

GEORGE ADAMS LELAND, A.M., M.D., *Professor of Laryngology.*
669 Boylston Street, Boston.

HARVEY PARKER TOWLE, A.B., M.D., *Lecturer on Dermatology.*
409 Marlboro St., Boston.

———, *Instructor in Anatomy.*

SHEPHERD IVORY FRANZ, Ph.D., *Instructor in Physiology and Medical Physics.*
Hanover.

GEORGE RICHARD LYMAN, A.M., *Instructor in Biology.*
Hanover.

CHARLES ERNEST BOLSER, Ph.D., *Instructor in Chemistry.*
Hanover.

ELIOT BISHOP, A.B., *Demonstrator of Anatomy.*
Brooklyn, N. Y.

DELEGATES FROM THE NEW HAMPSHIRE MEDICAL SOCIETY

EZRA MITCHELL, M.D. Lancaster, N. H.

MILTON SAWYER WOODMAN, M.D., West Lebanon, N. H.

DELEGATES FROM THE VERMONT MEDICAL SOCIETY

CLARENCE WILLIAMS LOCKE, M.D. Springfield, Vt.

HENRY CHESTER JACKSON, M.D. Norwich, Vt.

STUDENTS

FOURTH YEAR

Name	Residence	Room
Batchelder, Edw. Carpenter, A.B.	<i>Pittsfield, N. H.</i>	35 N. Main St.
Bell, George Waltham	<i>Governor's Island, N. Y.</i>	38 S. Main St.
Bishop, Eliot, A.B.	<i>Brooklyn, N. Y.</i>	26 College
Bliss, George Stephen	<i>Lebanon, N. H.</i>	10 Maple St.
Caverly, Fred Stickney	<i>Dover, N. H.</i>	19 Maple St.
Cobb, Gardner Nathan, A.B.	<i>Strafford, Vt.</i>	9 College St.
Hanson, William Thomas	<i>Milltown, Me.</i>	4 Wentworth St.
Hedin, Carl Johan	<i>Croydon, N. H.</i>	10 Maple St.
O'Connell, Andrew Edward	<i>Worcester, Mass.</i>	21 School St.
Severance, Robert Nathaniel	<i>Leyden, Mass.</i>	40 S. Main St.
Shanley, John Dawson	<i>Vernon, Conn.</i>	21 School St.

THIRD YEAR

Name	Residence	Room
Bowler, John William	<i>Hanover, N. H.</i>	22 Occom Ridge
Chase, Daniel Robert	<i>Orford, N. H.</i>	4 School St.
Dearborn, Selwyn Kenson, A.B.	<i>Hanover, N. H.</i>	6 W. Wheelock St.
Dudley, Charles Howard	<i>Lancaster, N. H.</i>	9 College St.
Fitch, Emery Moore	<i>Princeton, Me.</i>	9 College St.
Graham, George Sellers, B.L.	<i>Everett, Mass.</i>	13 E. Wheelock St.
Griffin, John Francis, B.L.	<i>So. Hadley Falls, Mass.</i>	6 W. Wheel'k St.
Johnson, Walter Alphonso	<i>East Hampstead, N. H.</i>	4 School St.
Kimpton, Arthur Roland	<i>East Somerville, Mass.</i>	23 Allen St.
Leach, Homer Zenas, A. B.	<i>Hanover, N. H.</i>	Medical Building
Merrill, Ayres Phillip	<i>Pittsfield, Mass.</i>	4 W. Wheelock St.
Pattrell, Arthur Ellis, B.S.	<i>Wilder, Vt.</i>	23 S. Main St.
Potts, Joseph Henry	<i>No. Billerica, Mass.</i>	12 Occom Ridge
Quigley, Frederick James	<i>Union Hill, N. J.</i>	5 W. South St.
Steeves, Ernest Colpitts	<i>Hanover, N. H.</i>	11 E. Wheelock St.
Whitcher, Burr Royce, A. B.	<i>Woodsville, N. H.</i>	9 College St.

SECOND YEAR

Name	Residence	Room
Abdian, Gregory Nazareth, A.B.	<i>Hadjin, Turkey</i>	13 Hallgarten
Bennett, Hamlin Perley, A.B.	<i>Farmington, N. H.</i>	23 College
Bullard, Edward Arthur	<i>Cambridge, Mass.</i>	6 College St.

Name	Residence	Room
Chedel, Charles Brigham, A.B.	<i>Pittsfield, Vt.</i>	1 S. Park St.
Craig, Willis Parker, B.L.	<i>Marlow, N. H.</i>	5 W. South St.
Farr, Irvin Harris	<i>Holyoke, Mass.</i>	4 School St.
Hoyt, Park Rowe	<i>Lakeport, N. H.</i>	9 Thornton
Mathes, Roy Wentworth	<i>Durham, N. H.</i>	19 Maple St.
McCorison, Carl Copeland	<i>North Berwick, Me.</i>	9 Thornton
Pike, Frederic Albert	<i>Brookline, Mass.</i>	5 W. South St.

FIRST YEAR

Name	Residence	Room
Bowles, Amasa	<i>Plymouth, N. H.</i>	22 Hallgarten
Brotherhood, James Stewart	<i>Brooklyn, N. Y.</i>	Dragon House
Carroll, Henry Gerald	<i>Peabody, Mass.</i>	22 School St.
Chase, Harry Woodbury	<i>Groveland, Mass.</i>	15 Reed
Dailey, Michael Andrew	<i>North Easton, Mass.</i>	24 Fayerweather
Davis, Charles Eleazer	<i>Tilton, N. H.</i>	13 Reed
Ellis, Arthur Henry	<i>North Billerica, Mass.</i>	8 College St.
Ford, David Emerson	<i>East Weymouth, Mass.</i>	15 Thornton
Giles, Raymond Larkin	<i>Salem, Mass.</i>	6 W. Wheelock St.
Hill, Albert Lyon	<i>Derry, N. H.</i>	22 Hallgarten
Holmes, Robert Ward	<i>Keene, N. H.</i>	6 W. Wheelock St.
Huse, Ernest Leslie	<i>Newton Junction, N. H.</i>	13 Lebanon St.
Jackson, Delbert Linscott	<i>Chelsea, Mass.</i>	Dragon House
Knox, Howard Andrew	<i>South Windham, Conn.</i>	9 Sargent St.
Laskey, Edward Philip	<i>Dover, N. H.</i>	7 Crosby
Littlewood, Thomas	<i>Fisherville, Mass.</i>	5 W. South St.
Mangurian, Armen Steven	<i>Hadjin, Turkey</i>	13 Hallgarten
Manning, Patrick John	<i>Hyde Park, Mass.</i>	25 S. Main St.
Meyers, Jerome	<i>Albany, N. Y.</i>	3 Dartmouth
Nealley, Willis Grafton	<i>South Berwick, Me.</i>	9 Thornton
Nichols, Herbert Nathan Thomas	<i>Norwich, Vt.</i>	16 Hallgarten
Norton, Daniel Capron	<i>New Britain, Conn.</i>	7 Dartmouth
Phelps, Olney Draper	<i>Warren, Mass.</i>	9 College St.
Robertson, Charles Warner	<i>Bridgeport, Conn.</i>	13 E. Wheelock St.
Safford, Henry Barnard	<i>West Stafford, Conn.</i>	27 College
Smith, Roscoe Brinker	<i>Norridgewock, Me.</i>	4 Allen
Snow, Harold Hanson	<i>Dover, N. H.</i>	35 N. Main St.
Sturtevant, Mills Gove	<i>Manchester, N. H.</i>	7 Dartmouth
Thompson, Howard Edward	<i>Bethlehem, N. H.</i>	23 N. Main St.
Vail, LeRoy Benjamin	<i>Brooklyn, N. Y.</i>	Dragon House
Weeks, Leon Motley	<i>Wilder, Vt.</i>	23 S. Main St.

REQUIREMENTS FOR ADMISSION

Applicants for admission to this School must have

- (a) graduated from a registered College, or
- (b) satisfactorily completed a full course in a registered Academy or High School, or
- (c) had a preliminary education considered and accepted as fully equivalent.

Upon bringing evidence of such preparation they will be received on certificate, provided the requirements in Latin, Chemistry, and Physics, specified below, have been met.

All other candidates for admission, unless they can show by certificate from some approved fitting school or college that they have passed examinations in a part of the requirements, will be examined in all the following subjects :

English, History (two of the four parts, *a*, *b*, *c*, or *d*), Mathematics, Latin, Chemistry, and Physics, according to specifications given below.

SUBJECTS WITH SPECIFICATIONS

ENGLISH —

Two sets of books are prescribed for preparation in English, one for reading, the other for more careful study. No candidate will be accepted in English whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs. The requirement consists of two parts.

I. Reading. — A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and be able to answer simple questions on the lives of the authors; he must also show the ability to write a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for

only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may be allowed to present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the requirement will be :

In 1904, 1905. — Shakespeare's *The Merchant of Venice* and *Julius Cæsar*; *The Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe*; Carlyle's *Essay on Burns*; Tennyson's *The Princess*; George Eliot's *Silas Marner*; Lowell's *The Vision of Sir Launfal*.

In 1906, 1907, 1908. — Shakespeare's *Macbeth* and *The Merchant of Venice*; *The Sir Roger de Coverley Papers* in *The Spectator*; Irving's *Life of Goldsmith*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe* and *The Lady of the Lake*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Lowell's *The Vision of Sir Launfal*; George Eliot's *Silas Marner*.

II. Study and Practice. — This part of the requirement presupposes the thorough study of each of the works named below. The test will be upon subject-matter, form, and structure.

The books set for this part of the requirement will be :

In 1904, 1905. — Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essays on Milton and Addison*.

In 1906, 1907, 1908. — Shakespeare's *Julius Cæsar*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essay on Milton*, and *Life of Johnson*.

HISTORY (including Historical Geography) —

- (a) The History of Greece to the death of Alexander, with due reference to Greek life, literature, and art.
- (b) The History of Rome to the accession of Commodus, with due reference to literature and government.

(c) English History, with due reference to social and political development.

(d) American History, with the elements of Civil Government.

A candidate may elect any two of the four divisions in History (*a*, *b*, *c*, or *d*).

(a) *Greek History*—

Oman's or Myers' History of Greece.

(b) *Roman History*—

Allen's Short History of the Roman People, and 300 pages additional reading.

(c) *English History*—

either Higginson and Channing's English History for Americans, *or* Montgomery's Leading Facts of English History, *or* Gardiner's English History for Schools, each with at least 300 pages additional reading, which may be selected from the following list: Creighton's Age of Elizabeth, Guest's Lectures on English History, Gardiner's Puritan Revolution, Freeman's Short History of the Norman Conquest, Green's Short History of the English People, Ch. i and Ch. vi, Sections iii-vii, Mrs. J. R. Green's Henry II, Macaulay's History of England, Ch. iii.

(d) *American History*—

either (1) Channing's Students' History of the United States *or* Johnston's History of the United States for Schools, each with 200 pages additional reading;

or (2) Higginson's Young Folks' History of the United States, through Ch. xvi, and *either* Channing's United States, 1765-1865, *or* Johnston, from beginning of Period V;

or (3) Higginson; Lodge's English Colonies, Ch. ii and xxii; Morse's John Quincy Adams, Ch. ii and iii; Josiah Quincy's Figures of the Past.

MATHEMATICS—

Algebra—The fundamental operations, simple equations with applications to problems involving two or more unknown quantities, the principles of factoring, involution and evolution applied to expressions containing fractional and negative exponents,

radicals, including imaginaries and radical equations, quadratic equations, with applications to problems involving two unknown quantities.

Plane Geometry — With the use of the metric system in the construction and solution of numerical problems based on the principal theorems.

LATIN —

The ability to translate at sight easy Latin prose.

The Latin book edited by Crothers and Bice for medical students, or something equivalent, is recommended for preparation for this examination.

CHEMISTRY —

Acquaintance by laboratory work with elementary processes and with the properties of substances common in chemistry; familiarity with the chemical notation in its experimental and arithmetical meaning, including the ability to solve simple problems based on the relations expressed by formulas and equations; understanding and ability to use correctly the ordinary terms of Descriptive Chemistry. Bartlett's Laboratory Exercises, Parts i-v (exclusive of Class i, part ii), or equivalent. A certified note-book of laboratory work must be presented. The student should have had in addition recitations based upon any good elementary descriptive text-book through the non-metallic and metallic elements.

To meet the above requirement, at least 110 hours of elementary chemistry are necessary, one-half laboratory work, illustrating the preparation and the properties of the substances ordinarily treated in elementary chemistry. Qualitative Analysis will not be accepted as an equivalent for the laboratory work prescribed.

PHYSICS —

The equivalent of at least one hundred and ten one-hour exercises, of which as many as forty should be practical exercises in the laboratory. The student is expected, in the time devoted to the laboratory work, to perform at least forty experiments, and to have kept a neat and orderly record of the same in a note-book, described in his own words. This note-book should bear the

certification of the instructor, and be presented for inspection at the time of the entrance examinations to the School.

The student should be taught, as far as possible, to apply the simpler principles of Algebra and Geometry to the solution of practical problems in Physics.

Any one of the following texts or manuals may be recommended for use in secondary schools preparing students for the Medical School: Elements of Physics, Carhart and Chute; Elements of Physics, Crew; A Text-Book of Physics, Hall and Bergen; Outlines of Physics, Nichols; Elements of Physics, Gage.

The Examinations for admission to the First or entering Class will be held in Room H, Chandler Hall, as follows: —

Physics	3.00 P.M., Sept. 15
Chemistry	3.00 P.M. " 16
Mathematics	9 00 A.M. " 17
History	3.00 P.M. " 17
Latin	9.00 A.M. " 19
English	3.00 P.M. " 19

ADMISSION TO THE SECOND YEAR

Students may be admitted without examination to the Second Year who present satisfactory evidence of having passed the examinations of the first year in an accredited Medical School.

ADMISSION TO THE THIRD YEAR

Candidates for admission to the Third Year must pass on August 11, 12, and 13, 1904, the examinations in Human Anatomy, Physiology, Inorganic and Medical Chemistry, Materia Medica, Pathology, Histology, and Bacteriology already taken by that class.

Such candidates should be in town August 10.

ADMISSION TO THE FOURTH YEAR

Candidates for admission to the Fourth Year must pass on August 11, 12, and 13, 1904, the examinations in Human Anatomy, Physiology, Inorganic and Medical Chemistry, Histology, Bacteriology,

Materia Medica, Pathology, Physical Diagnosis, and Therapeutics already taken by that class.

Such candidates should be in town August 10.

Students in the Academic department of Dartmouth College, may, at the beginning of their Senior year, matriculate in the Medical School, and take during Senior year the work and the examinations of the first year of the Medical School.

They will thus be able to earn the two degrees in seven years.

Students desiring to pass from the Academic Department of the College to the Medical School must bring the certificate of the President of the College, with his approval of such transfer.

COURSE OF STUDY

Professor H. N. Kingsford, of Hanover, N. H., will give the opening lecture of the One Hundred and Eighth Annual Course on Monday, the fifteenth day of August, 1904, at 4 P. M.

Full courses in all departments of Medical Science will be given during the session of seven months' duration. For the convenience of non-resident professors, eight or nine lectures are given in each branch weekly until their part of the work in their several branches is finished. The work in each branch is then continued by the resident professors, by lectures, by recitations, by work in the laboratories, and by clinics and ward classes at the Hospital, until the end of the session, when a written examination in each branch is given.

The course covers four years, and students are required to complete the work of each year in regular order, passing an examination at the close of each year in the studies of that year.

FIRST YEAR

Chemistry, Medical Physics, Biology, Comparative Anatomy, Human Histology, Human Anatomy, Physiology, Bacteriology.

SECOND YEAR

Systematic Anatomy, Physiology, Medical Chemistry, Pathology, Embryology, Materia Medica, Analysis of blood and urine.

THIRD YEAR

Regional Anatomy, Pathology, Obstetrics, Surgery, Medicine, Therapeutics, Physical and Differential Diagnosis, Gynecology.

FOURTH YEAR

Therapeutics, Surgery, Medicine, Obstetrics, Gynecology, Mental Diseases, Medical Jurisprudence, Hygiene, Ophthalmology, Laryngology, Otology, Diseases of the Skin.

FIRST YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Semester I.	Semester II.	Semester I.	Semester II.	Semester I.	Semester II.
Histology. Section II. Laboratory. Dr. Kingsford.	Physiology. Laboratory. Dr. Franz.	Chemistry. Laboratory or Recitation. Dr. Bolser.	Comparative Anatomy. Laboratory or Lecture. Dr. Patten.	Histology. Section II. Laboratory. Dr. Kingsford.	Physiology. Laboratory. Dr. Franz.
Human Anatomy. Recitation. Dr. Frost.	Human Anatomy. Recitation. Dr. —.	Histology. Section I. Laboratory. Dr. Kingsford.	Chemistry. Laboratory Dr. Bolser.	Human Anatomy. Recitation. Dr. Frost.	Human Anatomy. Recitation. Dr. —.
Physiology. Lecture. Dr. Franz.				Physiology. Lecture Dr. Franz.	
Medical Physics. Laboratory. Dr. Franz.	Histology and Bacteriology. Laboratory. Dr. Kingsford.	Biology. Laboratory. Mr. Lyman.	Histology and Bacteriology. Laboratory. Dr. Kingsford.		

SECOND YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Semester I.	Semester II.	Semester I.	Semester II.	Semester I.	Semester II.
A.M.	Physiology. Laboratory. Dr. Franz.		Embryology. Laboratory. Dr. Patten.		Physiology. Laboratory. Dr. Franz.	
8						
9				Materia Medica. Recitation. Dr. —.		
10	Anatomy. Recitation. Dr. —.		Pathology. Laboratory. Dr. Kingsford.		Anatomy. Recitation. Dr. —.	
11						
P.M.	Analysis of blood and urine. Laboratory. Dr. Kingsford.		Medical Chemistry. Laboratory. Dr. E. J. Bartlett.		Dissection. Laboratory. Dr. —.	
1						
2						

SECOND YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Semester I.	Semester II.	Semester I.	Semester II.	Semester I.	Semester II.
Embryology. Laboratory. Dr. Patten.	Materia Medica. Recitation. Dr. —.	Physiology. Laboratory. Dr. Franz.		Embryology. Laboratory. Dr. Patten.	Materia Medica. Recitation. Dr. —.
Pathology. Laboratory. Dr. Kingsford.		Anatomy. Recitation. Dr. —.	Medical Chemistry. Recitation. Dr. E. J. Bartlett.	Pathology. Laboratory. Dr. Kingsford.	
Medical Chemistry. Laboratory. Dr. E. J. Bartlett.		Analysis of blood and urine. Laboratory. Dr. Kingsford.	Dissection. Laboratory. Dr. —.		

THIRD YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.
A. M.						
8	Therapeutics. Lecture. Dr. Balliet.	Pathology. Lecture. Dr. Kingsford.	Therapeutics. Lecture. Dr. Balliet.		Therapeutics. Lecture. Dr. Balliet.	Pathology. Lecture. Dr. Kingsford.
9	Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Minor Surgery. Demonstration. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.
10	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.
11	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgical Clinic. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile.
P. M.	Lecture.	Lecture.	Same as Monday.		Same as Monday.	
1.30	Ophthalmology. Dr. Standish. Aug. 16 to Aug. 27.	Obstetrics.				
to	Otolaryngology. Dr. Leland. Aug. 29 to Sept. 10.	Mental Disease. Dr. Cowles.				
2.30	Dermatology. Dr. Towle. Sept. 12 to Sept. 24.	Medical Jurisprudence. Dr. Ordranax.				
	Gynecology. Dr. Dudley. Sept. 19 to Oct. 1.	Hygiene. Dr. Conn.				
2.30 to 4.30	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.	Surgical Clinic. Dr. Nancrede.	Dissection. Laboratory. Dr. —.	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.

THIRD YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.
Therapeutics. Lecture. Dr. Balliet.		Therapeutics. Lecture. Dr. Balliet.	Pathology. Lecture. Dr. Kingsford.	Therapeutics. Lecture. Dr. Balliet.	
Surgery. Lecture. Dr. Nancrede.	Minor Surgery. Demonstration. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Minor Surgery. Demonstration. Dr. Smith.
Therapeutics. Lecture. Dr. Balliet.	Gynecology. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.
Surgery. Lecture. Dr. Nancrede.	Gynecological Clinic. Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost or Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Surgical Clinic. Dr. Smith.
Same		Same			
as		as			
Monday.		Monday.			
Surgical Clinic. Dr. Nancrede.	Dissection. Laboratory. Dr. —.	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.		

FOURTH YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.
A.M.						
8	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.
9	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Diseases of Children. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.
10	Therapeutics. Lecture. Dr. Balliet.	Diseases of the Nervous System. Recitation. Dr. Frost.	Therapeutics. Lecture. Dr. Balliet.	Surgical Clinic. Dr. Smith.	Therapeutics. Lecture. Dr. Balliet.	Diseases of the Nervous System. Recitation. Dr. Frost.
11	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.		Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile.
P.M.						
1.30	Lecture. Ophthalmology. Dr. Standish. Aug. 16 to Aug. 27.	Lecture. Obstetrics.	Same as Monday.		Same as Monday.	
to	Otolaryngology. Dr. Leland. Aug. 29 to Sept. 10.	Mental Disease. Dr. Cowles.				
	Dermatology. Dr. Towle. Sept. 12 to Sept. 24.	Medical Jurisprudence. Dr. Ordranax.				
2.30	Gynecology. Dr. Dudley. Sept. 19 to Oct. 1.	Hygiene. Dr. Conn.				
2.30 to 4.30	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.	Surgical Clinic. Dr. Nancrede.	Sections at Hospital for clinical work in wards.	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.

FOURTH YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.	Aug. 15 to Sept. 24.	Sept. 26 to Apr. 1.
Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.
Surgery. Lecture. Dr. Nancrede.	Obstetrics. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Obstetrics. Recitation. Dr. Frost.
Therapeutics. Lecture. Dr. Balliet.	Gynecology. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diseases of Children. Recitation. Dr. Frost.	Therapeutics. Lecture. Dr. Balliet.	Surgical Clinic. Dr. Smith.
Surgery. Lecture. Dr. Nancrede.	Gynecological Clinic. Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile or Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	
Same		Same			
as		as			
Monday.		Monday.			
Surgical Clinic. Dr. Nancrede.	Sections at Hospital for clinical work in wards.	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.		

DEPARTMENTS OF INSTRUCTION

BIOLOGY AND COMPARATIVE ANATOMY

PROFESSOR PATTEN AND MR. LYMAN

FIRST YEAR

1. Elementary Biology. An introductory course giving a general survey of the field of Botany, some of the fundamental principles of Biology common to plants and animals, and a comprehensive review of the physiology, morphology, and reproduction of plants, special attention being paid to the lower plants and to the relation of fungi and bacteria to putrefaction, fermentation, and disease. The laboratory work involves the constant use of the compound microscope. One lecture and two laboratory exercises of two hours each per week. (Coulter's *Plants*.) First Semester, fifty-four exercises.

MR. LYMAN.

2. Comparative Anatomy of Vertebrates. The outlines of the classification of vertebrates, the homologies and the histological structure of vertebrate organs, the theories of the structure of the vertebrate head, and of the derivation of the Chordata will be discussed. The object of the course is to illustrate the evolution of the vertebrate type of animals from the lowest fishes, and related forms, up to man, and to discuss some of the conditions that are coincident with, or determine, the progressive modification of various vertebrate organs. (Wiedersheim's *Comparative Anatomy of Vertebrates*, Gray's *Anatomy*, and the embryological text-books of Minot, Hertwig-Mark, etc.) Second Semester, fifty-four two-hour exercises.

PROFESSOR PATTEN.

SECOND YEAR

3. Vertebrate Embryology. A study of the Embryology of the frog, the chick, and a mammal. (Minot's *Human Embryology*, Hertwig's *Embryology of Vertebrates*, Marshall's *Vertebrate Embryology*.) First Semester, seventy-two two-hour exercises.

PROFESSOR PATTEN.

MEDICAL PHYSICS

DR. FRANZ

FIRST YEAR

A laboratory course with occasional informal lectures and recitations to correlate the work done in the laboratory. The topics included will be those essential to a proper understanding of physiology and allied subjects (Daniells' *Physics for Students of Medicine*). First Semester, thirty-six exercises.

ANATOMY

PROFESSOR FROST AND DR. —.

FIRST YEAR

Osteology, Arthrology, and a preliminary study of the viscera. A course of recitations and demonstrations. Preparations from the Anatomical Museum are given out for study. An opportunity is offered to follow the dissections of the human body made by the men of the Second and Third classes. The written examinations covering the work in osteology and arthrology are final if satisfactory. (Gray's Anatomy, last edition.) First and Second Semesters, seventy-two exercises.

PROFESSOR FROST AND DR. —.

SECOND YEAR

Study of the muscles, blood vessels, lymphatics, and nerves by systems and by regions. Recitations and occasional lectures. Demonstrations by the instructor from manikins, plates, dried and wet preparations, and the cadaver. Dissection and demonstration of at least two parts by each student to the class. (Gray, Gerrish.)

DR. —.

THIRD YEAR

Study of the central nervous system and the viscera. Regional and Applied Anatomy. Lectures, recitations, and demonstrations. Dissection and demonstration of the remaining parts by the student. (Gray, Treves, Quain.)

PROFESSOR FROST.

PHYSIOLOGY

PROFESSOR W. T. SMITH AND DR. FRANZ

FIRST YEAR

1. A course of lectures and quizzes upon the essential facts of Physiology bringing them into relation as far as possible with future work. First Semester, fifty-four exercises.

PROFESSOR SMITH.

2. A laboratory course upon the physiology of nerve and muscle, and of the blood and circulation. Each student will perform the classic experiments in these subjects for himself. Second Semester, fifty-four exercises in the laboratory, two hours each.

DR. FRANZ.

SECOND YEAR

Four hours of laboratory work and one lecture or quizz each week.

The work to be done by the student includes experiments on digestion, respiration, the nervous system, and the special senses.

Demonstrations of some of the more difficult subjects will be made before the Class.

At some time in the second year each student will be expected to write a thesis on some topic included in the work, consulting as far as possible the original sources.

DR. FRANZ.

The Physiological Laboratory has recently been equipped with the latest apparatus. A sufficient number of complete sets has been provided to furnish one to every two students. These include kymograph, induction coil, and stimulating apparatus, tambours, apparatus to illustrate the circulation, etc.

The General Laboratory is furnished with instruments needed for research.

CHEMISTRY

PROFESSOR BARTLETT AND DR. BOLSER

FIRST YEAR

1. A systematic course, reviewing the Non-Metallic Elements rapidly, developing the more essential theories, and treating the Metallic Elements and their compounds, by lectures, recitations (Newth's *Inorganic Chemistry*), and by Qualitative Analysis in the

laboratory (A. A. Noyes's *Qualitative Analysis*). This course for completeness should be pursued through the year. It divides the time about equally between one-hour recitations and two-hour laboratory exercises. First and second Semesters, fifty-four exercises in each, one or two hours.

DR. BOLSER.

2. Either at the end of the first year or the beginning of the second year a short course in the more important compounds of carbon is given.

PROFESSOR BARTLETT.

SECOND YEAR

3. Physiological and Medical Chemistry. A course with laboratory, lecture and recitation work giving special attention to the carbohydrates and albumens, to Toxicology and the applications of Chemistry to medicine. First Semester and till the recess in the second Semester.

PROFESSOR BARTLETT.

HISTOLOGY, BACTERIOLOGY, AND PATHOLOGY

PROFESSOR KINGSFORD

FIRST YEAR

1. Histology. Laboratory work with recitations during the last few weeks of the course. The elementary tissues are first studied, then the various organs, including special study of the brain and cord. Each student may prepare and retain sections.

Six hours in the laboratory each week in the first Semester, eight hours each week thereafter.

This course extends through the first two-thirds of the year.

2. Bacteriology. Laboratory demonstrations supplemented by recitations. The aim in this course is to make it as practical as possible. Special attention is given to the examination of sputum for tubercle bacilli, to the diagnosis of diphtheria, the technic of the Widal serum diagnosis in typhoid fever, and to staining gonorrhoeal pus. Each student is required to isolate a number of different organisms. Special instruction is given to any student desirous of doing research work, either in bacteriology or pathology.

Eight hours in the laboratory each week.

This course follows Histology and extends through the last third of the year.

SECOND AND THIRD YEARS

3. Pathology. Six hours each week of laboratory work throughout the second year. Lectures, three times each week in the third year, illustrated by demonstrations of gross lesions whenever practicable. The laboratory work is devoted to the study of the pathological histology of inflammation, the infectious diseases, tumors, etc., with considerable attention to surgical pathology. The sections may be prepared and retained by the student.

MATERIA MEDICA AND THERAPEUTICS

PROFESSOR BALLIET AND DR. —

SECOND YEAR

1. Materia Medica is taught by recitations three times each week in the second Semester. DR. —.

THIRD AND FOURTH YEARS

2. Therapeutics. A course of sixty lectures with frequent quizzes and illustrations by the study of clinical cases at the Hospital.

PROFESSOR BALLIET.

GYNECOLOGY

PROFESSOR DUDLEY AND DR. GILE

THIRD AND FOURTH YEARS

1. A course of twenty-four lectures illustrated by diagrams, supplemented by clinical teaching at the Hospital. The students make examinations of the cases presented and follow the operations and after-treatment.

PROFESSOR DUDLEY.

2. Recitations once a week supplemented by further clinical instruction at the Hospital through the year, as described above. Clinical material is abundant.

DR. GILE.

OBSTETRICS

PROFESSOR — AND DR. FROST

THIRD AND FOURTH YEARS

1. A course of twelve lectures illustrated by diagrams and the use of manikins, with occasional quizzes. PROFESSOR —.

2. Recitations with section work upon manikins by the student, two hours each week. DR. FROST.

Preparation is thus secured for a course in the Out-patient department of a Lying-In Hospital which the student is advised to take during the vacation at the end of the third year. Evidence of attendance upon eight cases of confinement is required of candidates for the degree.

3. A few maternity cases are received at the Hospital, and when possible they serve to illustrate to the students in small sections the teaching and methods of obstetrics.

SURGERY

PROFESSOR NANCREDE AND DR. SMITH

THIRD YEAR

1. A course in Minor Surgery given partly at the College and partly at the Hospital. Demonstrations and quizzes. Three hours each week. DR. SMITH.

THIRD AND FOURTH YEARS

2. A course of seventy-two lectures supplemented by many clinical lectures and operations at the Hospital. The student is given cases to examine and study, and makes his report before the class.

PROFESSOR NANCREDE.

FOURTH YEAR

3. A course of recitations with further clinical lectures and study of individual cases by the student at the Hospital. Three hours each week. DR. SMITH.

OPHTHALMOLOGY

PROFESSOR STANDISH

A course of twelve didactic lectures with many clinical lectures and operations before the class. An excellent opportunity is afforded each student to study these cases.

LARYNGOLOGY AND OTOTOLOGY

PROFESSOR LELAND

A course of twelve didactic lectures with clinical lectures and many operations before the class. Opportunity to study and follow the treatment of individual cases.

MEDICAL JURISPRUDENCE

PROFESSOR ORDRONAU

A course of ten didactic lectures.

MENTAL DISEASES

PROFESSOR COWLES

A course of ten didactic lectures.

HYGIENE

PROFESSOR CONN

A course of nine didactic lectures.

DERMATOLOGY

DR. TOWLE

A course of twelve didactic lectures, supplemented by clinical lectures at the Hospital.

MEDICINE

PROFESSOR GILE AND DR. FROST

THIRD YEAR.

1. Physical Diagnosis. Study of methods of examination and physical diagnosis with enough of pathological anatomy to make the variations in the physical signs intelligible. About one-third of the course is given to lectures, one-third to recitations, and one-third to clinics. Five hours each week.

PROFESSOR GILE.

FOURTH YEAR

2. Medicine. Lectures and recitations with clinical examinations at the Hospital through the year. Six hours each week, with one or two hours additional each week of clinical examination at the Hospital.

PROFESSOR GILE.

3. Diseases of Children. Two recitations and one hour of clinical work each week.

DR. FROST.

4. Diseases of the Nervous System. Two recitations and one hour of clinical work each week.

DR. FROST.

MEDICAL SCHOOL

TEXT-BOOKS

ANATOMY — Gray, Gerrish, Quain, Treves.

HISTOLOGY — Piersol, Stöhr.

BACTERIOLOGY — Williams, Sternberg.

PHYSIOLOGY — Kirkes (Blakiston's edition). For reference, American Text-book of Physiology, Schäfer, Waller, Foster.

CHEMISTRY — Bartlett's Laboratory Exercises, Bartley's Medical, Tyson's or Purdy's Urinary Analysis, Newth's, Rockwood's Laboratory Manual.

THERAPEUTICS — Balliet's Notes, Wood, Bartholow.

PRACTICE OF MEDICINE — Osler, Tyson, Thompson.

PHYSICAL DIAGNOSIS — Butler's Diagnostics, Loomis, Cabot.

PATHOLOGY — Stengel, Ziegler, Coplin, Green.

SURGERY — American Text-book of Surgery, Nancrede, Wharton and Curtis, Park, Warren.

OBSTETRICS — Williams, Hirst, Lusk.

LARYNGOLOGY — Browne's Diseases of the Throat ; Barr, Diseases of the Ear ; McBride, Diseases of the Throat, Nose, and Ear ; Bishop, Diseases of the Ear, Nose, and Throat.

DISEASES OF CHILDREN — Holt.

DISEASES OF WOMEN — Dudley, Reed.

MEDICAL JURISPRUDENCE — Taylor.

MEDICAL PHYSICS — Daniell.

BIOLOGY — Coulter's Plants.

COMPARATIVE ANATOMY — Wiedersheim.

EMBRYOLOGY — Foster and Balfour.

DICTIONARY — Gould, Duane, Dorland.

EXAMINATIONS AND GRADUATION

During the first year of the study of medicine in this School examinations will be required in General Biology, Comparative Anatomy, Human Histology and Anatomy, Physiology, Medical Physics, Chemistry, and Bacteriology. At the end of two full years of the study of medicine and two courses of lectures, an examination will be required in Systematic Anatomy, Physiology, Medical Chemistry, Embryology, Materia Medica, and Pathology. At the end of three full years of the study of medicine and three courses of lectures, an examination will be required in Systematic and Regional Anatomy, Pathology, Physical Diagnosis, Therapeutics, Minor Surgery and Obstetrics. The examinations thus taken, if satisfactory, shall stand as final.

Certificates of examinations passed at other Colleges are not accepted in place of our own examinations for a degree, except as stated under Requirements for Admission.

Every candidate for the degree of Doctor of Medicine must (1) be more than twenty-one years of age; (2) be of good moral character; (3) have graduated from a registered College or satisfactorily completed a full course in a registered academy or high school; or have had a preliminary education considered and accepted as fully equivalent; (4) have studied medicine (unless matriculated before January 1, 1898), not less than four full school years of at least nine months each, including four satisfactory courses of at least six months each, in four different calendar years, in a medical college registered as maintaining at the time a satisfactory standard; (5) present evidence that he has dissected all parts of the cadaver; (6) present evidence of attendance upon eight cases of confinement; (7) pass a satisfactory written examination in Biology, Comparative Anatomy, Histology, Anatomy, Physiology, Medical Physics, Chemistry, Bacteriology, Embryology, Materia Medica, Pathology, Therapeutics, Obstetrics, Gynecology, Surgery, and Practice.

Final (oral) examinations before Delegates from the New Hampshire and Vermont Medical Societies will be held on the last Monday of February, 1904, and on March 31, 1905.

Besides the use of the special collections and apparatus of the Medical School, the students derive incidental advantages from the other departments of the College. Medical Students have access to College Hall and to the College library, including a medical library, on the same terms with other students.

Those desiring further information may address GILMAN D. FROST, M.D., Secretary, Hanover, N. H.

GRADUATES, FEBRUARY 24, 1903

Butterfield, Clarence Egbert, B. L.	Lord, Frederic Pomeroy, A.B.
Clark, William Edward, B. L.	Mayes, Matthew Taylor
Dolloff, Charles Hall, B.L.	Stickney, William, B.L.
Downing, Arthur Taylor, A.B.	Wallace, Arthur Lowell, A.B.
Dutton, Julius Maltby, A.B.	Warden, John Bachop, B.S.
Gates, George Cushman Coleman	Woodman, James Brown, A.B.
Hopkins, Arthur Warren, A.B.	

O'Donnell, John Keirn

Of the class of 1898



SUMMER SCHOOL

CALENDAR

1903 July 13 to August 14.
1904 July 11 to August 13.

SUMMER SCHOOL

FACULTY

SESSION OF 1903

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

THOMAS WILSON DORR WORTHEN, A.M., DIRECTOR *and*
Cheney Professor of Mathematics.

EDWIN JULIUS BARTLETT, A.M., M.D., *New Hampshire*
Professor of Chemistry.

HERBERT DARLING FOSTER, A.M., *Professor of History.*

FRED PARKER EMERY, A.M., *Willard Professor of Rhetoric*
and Oratory.

GEORGE RAY WICKER, PH.D., *Assistant Professor of Economics.*

GORDON FERRIE HULL, PH.D., *Appleton Professor of Physics.*

CHARLES HENRY RICHARDSON, PH.D., *Instructor in Min-*
eralogy and Geology.

ERNEST FELIX LANGLEY, A.M., *Assistant Professor of the*
Romance Languages (French and Italian).

HERMAN HARRELL HORNE, PH.D., *Assistant Professor of*
Philosophy and Pedagogy.

RICHARD WELLINGTON HUSBAND, A.M., *Assistant Pro-*
fessor of Greek and of Classical Philology.

FRANKLIN CROCKER LEWIS, A.M., *Instructor in Pedagogy.*

LEON BURR RICHARDSON, B.L., *Instructor in Chemistry.*

AVERY ELDORUS LAMBERT, B.S., *Assistant in Biology.*

ARTHUR HOUSTON CHIVERS, A.B., *Assistant in Botany.*

For list of lectures, with subjects, see page 304.

STUDENTS

- Bailey, Dearborn, Student, *English, Mathematics*, Dedham, Mass.
Barton, Ralph Martin, Student, *English, Economics, Classical Philology*, Hanover, N. H.
Burrage, Dwight Grafton, A.M. (Amherst), Prin. Cal. County Grammar School, *Education, Botany*, Peacham, Vt.
Chase, Frederick, Student, *Economics, Chemistry*, Hanover, N. H.
Clark, Allen Chester, Student, *History, English*, Centre Harbor, N. H.
Clow, Arlington Ingalls, Student, *Spanish, Chemistry, Mineralogy*, Orange, Mass.
Collins, Ralph Waldo, Student, *Mathematics, Mineralogy*, Kingston, N. H.
Creamer, James Allyn, Student, *Mineralogy*, Fall River, Mass.
Crawford, Alexander Blair, A.M. (Dartmouth), Prin. High School, *Education, Mathematics*, Newmarket, N. H.
Currier, Clara May, Teacher, Proctor Academy, *Education, History, English, Mineralogy*, Andover, N. H.
Cushman, Ernest Thomas, A.B. (Colby), Asst. Prof. Math., Penn. Mil. Coll., *Mathematics*, Chester, Penn.
Dana, Edward Swan, *Mathematics, Physics*, Woodstock, Vt.
Day, George Willis, B.S. (Dartmouth), Sub-Prin. Classical High School, *Physics, Botany*, Lynn, Mass.
Dimond, Miriam Esther, B.S. (Bethany), Teacher, Cal. County Grammar School, *English*, Peacham, Vt.
Downey, John Eustis, Student, *Biology, Mineralogy*, Newtonville, Mass.
Elmore, Mary Elizabeth, Teacher, Public School 35, *History, English*, New York, N. Y.
Fairbanks, Elsie Daniels, A.B. (Wellesley), Teacher, High School, *History*, Manchester, N. H.
Farrington, Alice Elizabeth, First Asst. Gram. School, *Education, Physics, Nature Study*, West Roxbury, Mass.
Frazer, Matilda Alexandra, Teacher, Girls' Latin School, *Mathematics*, Boston, Mass.
French, Edward Sanborn, Student, *French, Mathematics*, Somerville, Mass.
French, Ferdinand, Student, *Mathematics, Mineralogy*, Pittsfield, N. H.
Gallagher, Morrill Allen, Student, *English, Mathematics*, Roxbury, Mass.
Gentleman, Fred William, A.B. (Dartmouth), Sub-master High School, *Physics, Chemistry*, Reading, Mass.
Gilbert, Oscar Bowen, Student, *Mathematics*, Woonsocket, R. I.

- Gilman, John Taylor, Student, *Botany, Mineralogy*, Exeter, N. H.
Gray, Clarence Tebbets, Student, *Mathematics*, Newport, Vt.
Griffin, James Thomas, Jr., Student, *English, Mathematics*, So. Hadley Falls, Mass.
Hackney, Raymond, Student, *English, Mineralogy*, Chicago, Ill.
Halbert, Anna Eveline, Teacher, Public School 56, *Botany, Nature Study*, Brooklyn, N. Y.
Halbert, Matilda Clara, Teacher, Public School 75, *Botany, Nature Study*, Brooklyn, N. Y.
Hapgood, Ernest Granger, A.B. (Brown), Teacher, Volkmann School, *Mathematics*, Boston, Mass.
Hawley, Walter Earl, Student, *Mathematics*, Norwich, Vt.
Hazen, Conrad Philip, Student, *Mathematics*, Norwich, Vt.
Holton, Ray Clifford, Student, *Mathematics, Botany*, Chicago, Ill.
Hutchinson, Jonas, Jr., Student, *History, Mathematics*, Chicago, Ill.
Jones, Fred Andros, Student, *Mathematics*, Nashua, N. H.
Kingsley, Ralph Hutchings, Student, *French, Mathematics*, Bar Harbor, Me.
Knight, Howard Vivian, Student, *Chemistry, Mineralogy*, Dorchester, Mass.
Loder, Halsey Beach, Student, *Chemistry*, Thetford, Vt.
Lord, Grace Elizabeth, Teacher, Normal School, *Education, History, French, Mathematics*, Orange Park, Fla.
Macaular, Harvey Sumner, Student, *History, Chemistry*, Cambridge, Mass.
McDonald, Aline Isabel, *Mathematics*, New York, N. Y.
McDonald, Mary Isabel, Pd. M. (Teachers' Coll., N. Y.), Teacher, Public Schools, *Education, History, English, Physics*, New York, N. Y.
McFarland, Henry Webster, Student, *Mathematics, Botany*, Concord, N. H.
McFeeters, William Rensselaer, Student, *Physics*, Enosburg Falls, Vt.
McLam, May Belle, Teacher, High School, *Education, History, Classical Philology*, Concord, N. H.
McMahon, Mary Elizabeth, Teacher, Public School 170, *English, Physics*, New York, N. Y.
Mathes, Maurice Everett, Student, *Botany, Mineralogy*, Dover, N. H.
May, Beatrice Sophia, Teacher, Graded School, *English*, St. Johnsbury, Vt.
May, Eunice Anne Storrs, *History, English*, St. Johnsbury, Vt.
Merrill, Leon Orlando, A.B. (Dartmouth), *Mathematics, Chemistry*, Pittsfield, N. H.
Morse, Kenneth Lee, A.M. (Dartmouth), Prin. High School, *French*, Colebrook, N. H.
Myers, Malcolm Hulbert, Student, *English, French*, Newton Centre, Mass.
Nancrede, Henry Walstone, *Mathematics, Physics*, Ann Arbor, Mich.
Nichols, Elizabeth, A.B. (Middlebury), Teacher, High School, *Classical Philology*, Ballston Spa, N. Y.
Parker, Charles Stevens, Student, *English, Mathematics*, West Newton, Mass.
Pearson, Robert Houghton, *Chemistry*, Concord, N. H.
Peirce, Joshua Winslow, Student, *Botany*, Portsmouth, N. H.
Perry, Louis Irving, Student, *Physics*, North Billerica, Mass.

- Powell, Jennie May, *English*, Montclair, N. J.
- Pratt, Elon Graham, Student, *History, Mineralogy*, Brooklyn, N. Y.
- Proctor, George Newton, Jr., Student, *English, Mathematics, Mineralogy*, Fitchburg, Mass.
- Ricker, Charles Henry, Student, *Spanish, Zoölogy*, Kings Bridge, N. Y.
- Rollins, Dillwyn Sidney, Student, *French, Mineralogy*, Newburyport, Mass.
- Root, Frederick James, Student, *English, French, Mineralogy*, Chicago, Ill.
- Ruppel, Henry Erich Kasemere, A.B. (Dartmouth), Graduate Student, *Chemistry*, Brooklyn, N. Y.
- Sayles, Arthur Earle, Student, *Physics*, Uxbridge, Mass.
- Scales, Luella Hannah, Teacher, Proctor Academy, *Physics, Nature Study, Mineralogy*, Andover, N. H.
- Silha, Emil Albert, Student, *English, Botany*, Chicago, Ill.
- Smith, Howard Ernest, Student, *Botany, Mineralogy*, Newburyport, Mass.
- Smith, Pierre Journeay, Student, *Mathematics, Chemistry*, Upper Montclair, N. J.
- Stone, Fred, Student, *Economics, Mathematics, Mineralogy*, Windsor, Vt.
- Strasburger, Bertha, Teacher, Wadleigh High School, *English, Mathematics*, New York, N. Y.
- Tibbetts, Roy Harvey, *Mathematics, Chemistry*, Calais, Me.
- Towle, Elizabeth Angeline, A.B. (Wellesley), Assistant, High School, *History*, Milford, N. H.
- Vilas, Maynard, Student, *Mathematics, Mineralogy*, New York, N. Y.
- Walker, Edith Marion, Teacher, High School, *History, Classical Philology*, Concord, N. H.
- White, Josephine Ames, A.B. (Radcliffe), Teacher, High School, *History*, Chicopee, Mass.
- Wood, Bourne, Student, *Zoölogy, Mineralogy*, Middleboro, Mass.
- Woods, Carl Fred, Student, *Chemistry*, W. Brookfield, Mass.
- Wyman, William Ulysses, *French, Mathematics*, Somerville, Mass.
- Zeiss, Harold, *Chemistry, Mineralogy*, Chicago, Ill.

GENERAL STATEMENT

In the summer of 1899 a School was established in charge of members of the faculty, for the benefit of teachers who might wish to take short courses of College grade. The success of the School has led to more definite and continuous courses of study, available both to teachers and to college students. It is the object of the School to give instruction in Pedagogy, and in the methods of teaching specific subjects, and at the same time to make provision for advanced study, looking toward a degree. Certificates are given for attendance on lecture courses, for class-room or laboratory work, for examinations which are offered at the close of each course.

College students, completing courses which are marked as class-room courses or their equivalents, are given credit for these courses according to their value in the curriculum.

COURSES OF INSTRUCTION, 1903

HISTORY AND PHILOSOPHY OF EDUCATION — MR. LEWIS AND PROFESSOR HORNE

This course consisted of thirty hour-lectures, the first ten being given by Mr. Lewis on "Ten Great Modern Educators," and the remaining twenty by Professor Horne on the "Philosophy of Education," including discussions of the nature of education from biological, physiological, sociological, psychological, and philosophical points of view. The aim of the course was to give teachers a broad conception both of the practice and of the theory of education.

This was equivalent to a course of two Semester hours.

HISTORY — PROFESSOR FOSTER

1. (a) Mediæval and Modern European History (375-1492). Twenty-five lectures designed to give teachers a brief outline of historical development, and some understanding of those great

achievements and institutions which have vitally influenced modern Europe and America. Reading and reports. Course 1, page 126.

(b) English History in the Tudor and Stuart period (1485-1689). Ten lectures outlining national development and those relations with the Continent and America, essential to satisfactory teaching of European and American History.

2. American Colonial History to 1783. Twenty-five lectures emphasising the development of American institutions and the beginnings of the nation, rather than the details in the history of individual colonies. Two lectures illustrative of the treatment of state and local history. Conferences, reading and reports. Course 5, page 127.

ECONOMICS — PROFESSOR WICKER

In this course the attempt was made to give the student the currently accepted scientific analysis of modern industrial society. It sought to accomplish a threefold purpose: to teach fundamental principles in such a way that they might be applied to the duties of enlightened citizenship; to open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to present such general rules and principles as are contributed to business by the science of Economics. A two-hours Semester course.

ENGLISH — PROFESSOR EMERY

1. Courses and Methods of Teaching English. A discussion of text-books; of the best methods of teaching composition and literature; of the place and value of English as a secondary school study.

2. English Literature. The works chosen for study were mainly those required for entrance to college, and included the writings of Milton, Dryden, Addison, Pope, Goldsmith, Burke, DeQuincey, Macaulay, Scott, and Tennyson. The object of the course was to ensure acquaintance with the literature itself and to fix some general standards of criticism.

3. Composition and Rhetoric. An introduction to the study of Rhetoric, with the preparation and criticism of themes, and constant reference to printed examples of correct and incorrect style. Also practice in theme correcting, based upon the actual written work of

college and secondary school students. Course 1, or by those properly prepared, course 2, page 86.

4. Shakespeare. The critical and appreciative study of Shakespeare's plays, with lectures upon Shakespeare as a dramatic artist. Daily reports upon assigned readings. Course 22, page 89.

FRENCH — PROFESSOR LANGLEY

1. An advanced course, with practice in speaking and writing French, with special training in the use of common idioms so as to acquire the ability to understand readily spoken French. Course 9, page 91.

2. General Survey of French Literature. In this course students were given an opportunity to become acquainted with many of the greatest works in French literature. Works of the following authors were read: Corneille, Racine, Molière, Sévigné, Descartes, and Pascal. Lectures and themes. Course 11, page 92.

SPANISH — PROFESSOR LANGLEY

The course was for beginners. The work was in Spanish grammar, composition, and translation. Course 1, page 94.

CLASSICAL PHILOLOGY — MR. HUSBAND

1. Historical Latin Grammar. Lectures by the instructor and reports by the members of the class on assigned topics in Latin phonology and morphology; special investigation in the shifting of accent and the reduction of vowels; extensive readings in early Latin and in the Roman writers on the history of language. This course was of graduate grade and amounted to three Semester hours.

MATHEMATICS — PROFESSOR WORTHEN

1. Course for Teachers. Outlines of Arithmetic, Algebra and Plane Geometry, with discussion of methods. Graphic Algebra, and Algebraic Geometry.

2. Plane Geometry. The essentials of the subject, with applications.

3. Algebra. Quadratic and indeterminate equations, ratio and proportion, variation, series, binomial theorem, logarithms, permuta-

tions and combinations, theory of equations, graphic algebra. Course 1, page 102.

4. Solid Geometry, with original demonstrations and the solution of problems relating to the surfaces and volumes treated. Course 2, page 103.

5. Plane Trigonometry, with applications to problems in surveying, Spherical Trigonometry. Courses 4, 4a, page 103.

6. Analytic Geometry. An elementary course involving the use of rectangular and polar systems. It included right lines, conic sections, the more important higher and transcendental curves. The principal object in view was the work in advance, but it had a direct bearing on the teaching of the earlier Mathematics, especially Algebra. Courses 5, 7, page 103.

7. Differential and Integral Calculus, with geometrical applications. Courses 10, 10a, page 103.

PHYSICS — PROFESSOR HULL

1. An elementary course, chiefly laboratory work, with occasional lectures.

2. A course in the theory and use of instruments of precision and in the experimental verification and application of physical laws. Course 3, page 108.

3. Advanced and special laboratory work. Courses were arranged to meet the desires of the students.

CHEMISTRY — PROFESSOR BARTLETT AND MR. L. B. RICHARDSON

1. Elementary Chemistry. Lectures, recitations, and laboratory work. Special emphasis was laid upon the general principles of Chemistry, the Notation in its experimental and arithmetical meaning, and the Nomenclature and Terminology in their applications. Course 2, page 113.

2. Qualitative Analysis. A study of the metals and their compounds by lectures, recitations, and by Qualitative Analysis in the laboratory. Course 3, or course 4, page 113.

3. Quantitative Analysis. Elementary and advanced gravimetric and volumetric methods. Course 7, or course 8a, page 114.

BOTANY — MR. LAMBERT AND MR. CHIVERS

1. An introductory course giving a general survey of the vegetable kingdom. The lectures treated of some of the fundamental principles of Biology common to both plants and animals, special attention being paid to the lower plants, and to the relation of fungi and bacteria to fermentation, putrefaction and disease. The laboratory work involved the constant use of the compound microscope in the examination of some of the principal plant types throughout the vegetable kingdom. Course 1, page 117.

2. A general course on the higher plants. It treated of the morphology and development of the flowering plants, embracing the main topics of their structure, functions and habits, together with their classification, distribution, adaptations and uses. Opportunity was given for the preparation of an herbarium illustrating some definite problem in ecology. Course 6, page 119.

ZOOLOGY — MR. LAMBERT

3. An introduction to the study of animal life. The structure and life history of a series of typical animals were observed and interpreted in the laboratory in order to gain an insight into the elementary principles of the science. Thus the differences between animals and plants, the evolution and interrelation of animal forms, the phenomena which lie at the basis of nutrition, growth, and heredity, the interaction which exists between animals and their environment, etc., were discussed in the lectures and illustrated in the laboratory. Course 2, page 117.

MINERALOGY — DR. C. H. RICHARDSON

1. A systematic course in the detection of economic minerals by blowpipe reactions and confirmatory chemical tests. Practical methods of determining rock-forming minerals, with field work. The origin, differences, economic uses, and annual output of the various ores were emphasized.

2. The design of this course was to illustrate the modes of occurrence in nature of minerals and ores which have economic importance, to show the localities in which they are obtained, the processes used in their extraction and treatment, and their application to arts and

industries. Ores and products of the precious metals, ores and products of the useful metals, glass, sands, and the ores of the alkaline earths and alkalis were considered. Course 3, page 125.

NATURE STUDY — MR. LAMBERT

This course was intended to furnish teachers with methods of observation and instruction. There were thirty exercises, the time being employed both in the laboratory and in the field, affording an opportunity for work in Botany, Zoölogy, and Geology.

Special attention was paid to the collection and classification of material, its preparation and preservation for use in the school, the equipment and care of aquaria, etc.

EVENING LECTURES

During the session a series of lectures is given on Wednesday evenings.

LIST OF SPEAKERS AND SUBJECTS, 1903

Professor C. A. Young, LL.D., "The Moon." Illustrated.

Professor T. W. D. Worthen, "Mathematics in Education."

Professor H. D. Foster, "Castle Life in Germany." Illustrated.

Professor F. P. Emery, "The Novels of George Eliot."

Professor H. H. Horne, "Some Contemporary Educational Tendencies."

The libraries, reading and reference rooms, museum, and gymnasium are open to students of the Summer School.

The single tuition fee for the session, whether one or more courses be taken, is \$20, and the laboratory fees are those charged by the departments for the corresponding courses in College.

The next session will open July 11, and close August 13, 1904. A circular containing an extended description of the courses will be issued early in the new year.

For further information, address Professor T. W. D. Worthen, Director, 11 Webster Avenue, Hanover, N. H.

ALUMNI ASSOCIATIONS

ALUMNI ASSOCIATIONS

THE GENERAL ASSOCIATION

FOUNDED IN 1854

President, JOHN L. HILDRETH, '64.

Vice-Presidents, { CHARLES W. BARTLETT, '69.
EDWARD N. PEARSON, '81.

Secretary, FRANK A. SHERMAN, '70, Hanover, N. H.

Statistical Secretary, JOHN M. COMSTOCK, '77, Chelsea, Vt.

Treasurer, PERLEY R. BUGBEE, '90, Hanover, N. H.

Executive Committee :

WILDER L. BURNAP, '63 (*Chairman*). GEORGE H. M. ROWE, '64.

ISAAC F. PAUL, '78 (*Secretary*). HOWARD F. HILL, '67.

EDWIN F. JONES, '80. T. W. D. WORTHEN, '72.

WILLIAM H. GARDINER, '76.

Committee on Alumni Trustees :


EDWIN B. HALE, '65 (*Chairman*). JOSEPH A. DEBOER, '84.

SHERMAN E. BURROUGHS, '94. GEO. W. ESTABROOK, '61.

JOHN GAULT, '95.

The membership includes all graduates of the College, the Thayer School of Civil Engineering, and the Chandler School of Science and the Arts. Others who receive from the College an Honorary Degree, or are elected at an Annual Meeting, shall be honorary members, but without the right of voting.

The Annual Meeting is held in the old chapel in Dartmouth Hall on Tuesday afternoon of Commencement week. The Alumni Dinner occurs on Wednesday, Commencement Day.

 The attention of the Alumni is called to the fact that the Commencement exercises occur on Wednesday instead of Thursday.

By an arrangement with the Trustees of the College, five of their number are elected to their office upon the nomination by ballot of all Alumni of the College of three years' standing, one vacancy occurring in the Board at each Commencement.

Ballot forms, containing the names of five candidates who have been selected by the Nominating Committee for the vacancy, are sent to all Alumni two months before Commencement, and the voting closes at 6 P.M. on Tuesday evening of Commencement week.

LOCAL ASSOCIATIONS

BOSTON ASSOCIATION, FOUNDED IN 1864

President, STEPHEN M. CROSBY, '49.

Secretary, GUY W. COX, '93, 73 Tremont St.

Annual Reunion, third Wednesday in January.

NEW YORK ASSOCIATION, FOUNDED IN 1866

President, CHARLES E. QUIMBY '74.

Secretary, LUCIUS E. VARNEY, '99, 38 Park Row.

Annual Reunion, last Friday in January.

CINCINNATI ASSOCIATION, FOUNDED IN 1875

President, CHESTER W. MERRILL, '66.

Secretary, ALBERT H. MORRILL, '97, City Hall.

Annual Reunion in January.

WASHINGTON ASSOCIATION, FOUNDED IN 1876

President, CHARLES A. PROUTY, '75.

Secretary, HENRY P. BLAIR, '89, 213 E. Capitol St.

Annual Reunion in January.

CHICAGO ASSOCIATION, FOUNDED IN 1876

President, NELSON A. MCCLARY, '84.

Secretary, CARL H. GOODWIN, '86, 378 Wabash Ave.

Annual Reunion in January.

NORTHWEST ASSOCIATION, FOUNDED IN 1880

President, ALBERT P. WARREN, '74.

Secretary, EDWARD J. BROWN, '74, 39 Syndicate Block, Minneapolis, Minn.

Annual Reunion at Minneapolis in January.

PACIFIC COAST ASSOCIATION, FOUNDED IN 1881

President, THOMAS A. PERKINS, '90.

Secretary, S. G. SMITH, '97, 325 Sansome St., San Francisco, Cal.

Annual Reunion, second Thursday in April.

MANCHESTER (N.H.) ASSOCIATION, FOUNDED IN 1881

President, ELIJAH M. TOPLIFF, '52.

Secretary, ARTHUR H. HALE, '86.

Annual Reunion, second Tuesday in January.

CONCORD (N.H.) ASSOCIATION, FOUNDED IN 1891

President, J. EASTMAN PECKER, '58.

Secretary, WALTER H. FLETCHER, '00.

Annual Reunion, last Wednesday in January.

CENTRAL AND WESTERN MASSACHUSETTS ASSOCIATION,
FOUNDED IN 1892

President, HENRY L. PARKER, '56.

Secretary, J. FRANK DRAKE, '02, Springfield.

Annual Reunion at Worcester or at Springfield.

VERMONT ASSOCIATION, FOUNDED IN 1893

President, WILDER L. BURNAP, '63.

Secretary, FRED A. HOWLAND, '87, Montpelier.

Annual Reunion at Montpelier in October.

"THE GREAT DIVIDE" ASSOCIATION, FOUNDED IN 1895

President, WALTER C. FROST, '76.

Secretary, FRED P. TUXBURY, '93, 229 Majestic B'ld'g., Denver, Colo.

Annual Reunion at Denver, second Tuesday in January.

DETROIT ASSOCIATION FOUNDED IN 1895

President, ALFRED RUSSELL, '50.

Secretary, WILLIAM S. SAYRES, '76, 163 West Willis Ave.

ROCKY MOUNTAIN ASSOCIATION, FOUNDED IN 1895.

President, CLINTON H. MOORE, '74.

Secretary, ARTHUR G. LOMBARD, '79, Helena, Mont.

"OF THE PLAIN" ASSOCIATION FOUNDED IN 1898

President, N. MERRIAM, ex-'74.

Secretary, SOLON R. TOWNE, '72, Continental B'ld'g., Omaha.

MEDICAL SCHOOL ASSOCIATION FOUNDED IN 1886

President, GRANVILLE P. CONN, M.D., '56.

Secretary, HOWARD N. KINGSFORD, M.D., '98, Hanover, N. H.

Annual Reunion at Concord, N. H., at the time of the meeting of the New Hampshire Medical Society, about May 20.

THE DARTMOUTH CLUB OF BOSTON, FOUNDED IN 1890

President, ISAAC F. PAUL, '78.

Secretary, HORACE G. PENDER, '97, 209 Washington St.

Regular meetings and dinners are held each month during the year, excepting January, July, August, and September. They are held at the University Club, 270 Beacon Street, or at some up-town hotel, on the evening of the second Friday of the month. The Annual Meeting is that held in December.

THE DARTMOUTH CLUB OF THE CITY OF NEW YORK,
FOUNDED IN 1899

President, HENRY MELVILLE, '79.

Secretary, CLARENCE G. MCDAVITT, '00, 26 Liberty St.

Regular meetings and dinners are held on the first Friday of March, June, October, and December. The Annual Meeting is that held in December. The place of meeting is at the rooms of the Aldine Association, 111 Fifth Avenue.

PHI BETA KAPPA SOCIETY

Alpha of New Hampshire, founded in 1787.

President, NATHAN J. MORRISON, '53.

Vice-President, GEORGE D. LORD, '84.

Secretary, CRAVEN LAYCOCK, '96, Hanover, N. H.

Treasurer, JOHN M. POOR, '97.

Annual meeting, in Hanover, last Tuesday in June.

CLASS OF 1903

Cobb, Stanwood

Comstock, Harold Dearborn

Crosse, Franklin

Cushing, Henry Dwight

Cutter, Victor Macomber

Delano, Henry Ward

Groves, Ernest Rutherford

Haney, Lewis Henry

Hess, Harold Miner

Matteson, Byron Winfield

Patch, George William

Reed, George Albert

Ropes, Howard Leon

Ruppel, Henry Erich Kasemere

Smith, Harold Elno

Smith, James Francis

Smith, Sherman

Woolverton, William Hand

PUBLICATIONS

All graduates are hereby earnestly requested to forward their publications to the College Librarian for preservation in the Alumni alcove.

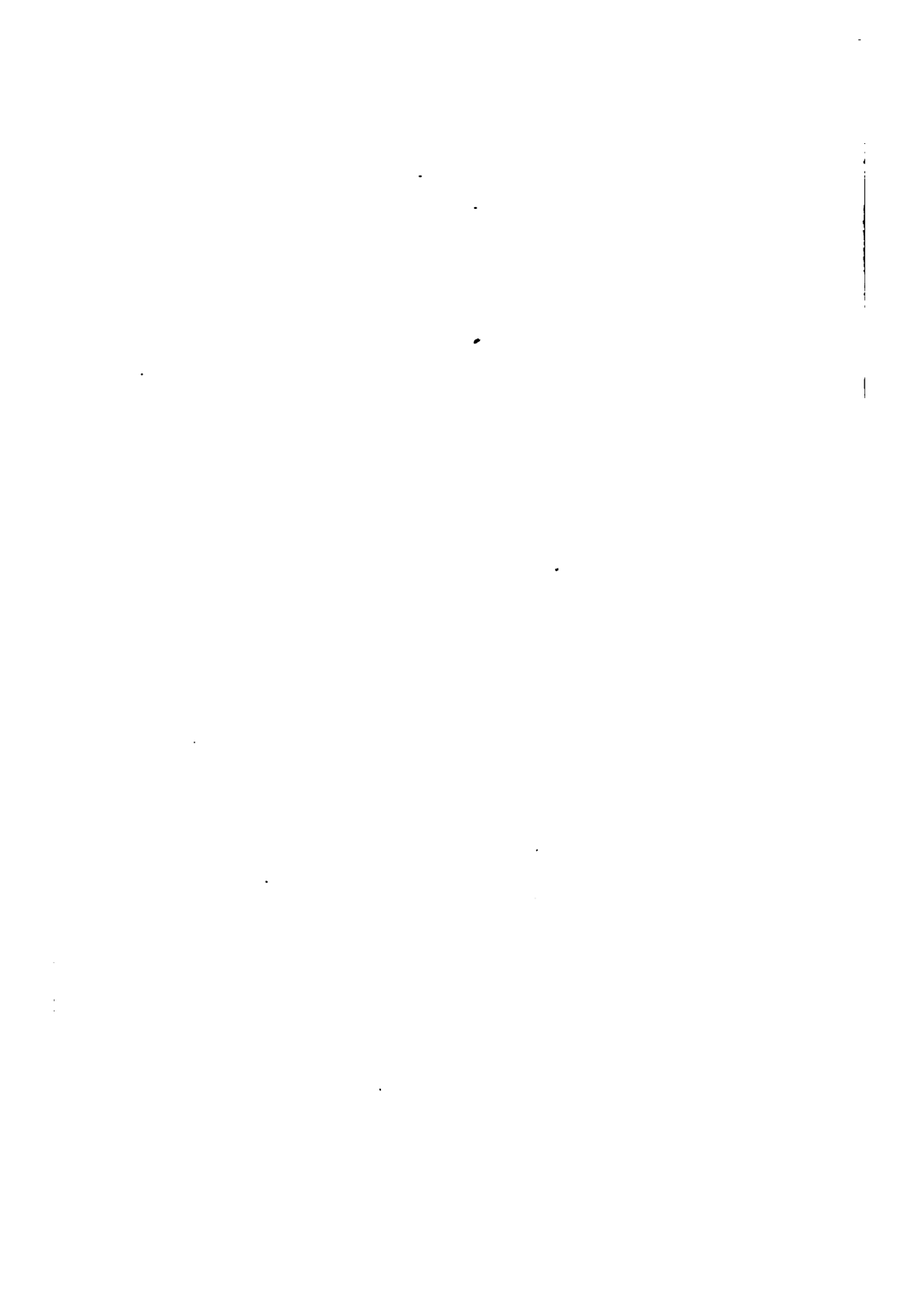
The Annual Catalogue, usually issued in December, will be sent to each Alumnus whose correct address is known.

An Obituary Record is published annually in the Autumn, and will be sent to each Alumnus with the Annual Catalogue in December.

A new General Catalogue, much enlarged, with historic notes and views of buildings, old and new, was issued in December, 1900. This General Catalogue will be sent to any address on the receipt of \$.50 for paper cover, or for \$1.00 bound in cloth.

In response to numerous requests that the proceedings of the Webster Centennial be published, a volume was issued by the College describing the exercises in detail and giving the addresses and speeches, together with notes of reminiscences. The price is \$1.50 for cloth, and \$1.00 for paper cover. The orders for either the General Catalogue or the Webster Volume may be sent to Professor C. F. Emerson, Dean, Hanover, N. H.

SUMMARY AND INDEX



GENERAL SUMMARY OF STUDENTS

DARTMOUTH COLLEGE	802
TUCK SCHOOL	19
THAYER SCHOOL	29
MEDICAL SCHOOL	68
Total (deducting for names inserted twice).	<u>870</u>
SUMMER SCHOOL (session of 1903)	82

DISTRIBUTION BY STATES AND COUNTRIES

MASSACHUSETTS	324	MICHIGAN	3
NEW HAMPSHIRE	238	NEBRASKA	3
VERMONT	68	WISCONSIN	3
ILLINOIS	50	KANSAS	2
NEW YORK	50	TENNESSEE	2
MAINE	46	TURKEY	2
CONNECTICUT	21	ARKANSAS	1
OHIO	11	INDIANA	1
RHODE ISLAND	9	IOWA	1
COLORADO	6	JAPAN	1
NEW JERSEY	7	MARYLAND	1
MISSOURI	5	MINNESOTA	1
CANADA	4	SOUTH CAROLINA	1
DISTRICT OF COLUMBIA	4	VIRGINIA	1
PENNSYLVANIA	4		

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